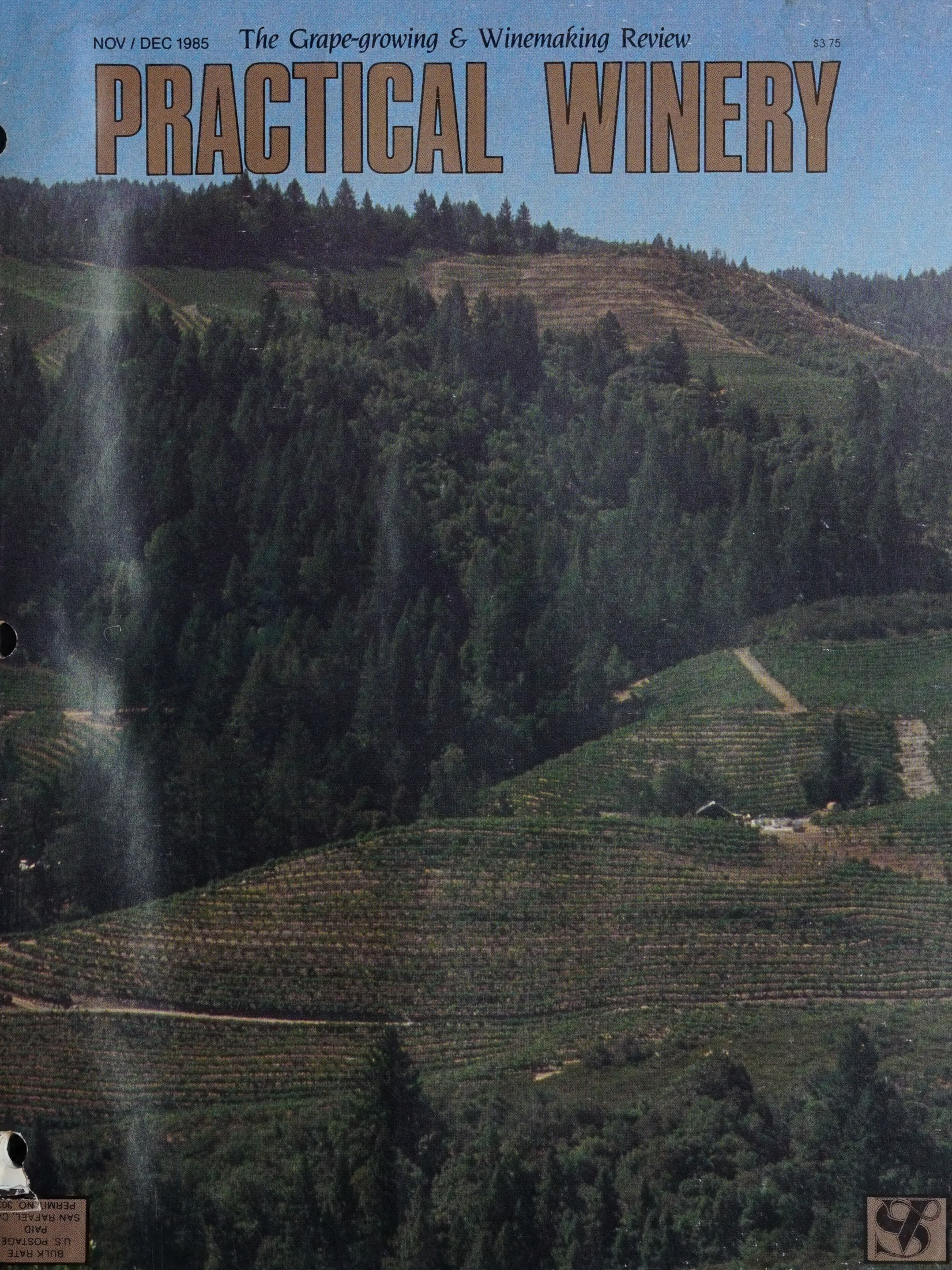
NOV / DEC 1985

The Grape-growing & Winemaking Review

$3.75

PRACTICAL WINERY



BULK RATE
U.S. POSTAGE
PAID
SAN RAFAEL, CA
PERMIT NO. 307

Customer Service

"One of the most important things that I consider when purchasing equipment is the availability of service to us."

Mr. Mike Nury
President
Vie-Del Company

"Valley has a tremendous reputation for reliability. That's very important to decision making. We cannot afford to wait three or five days for a part to be air freighted from Milan or someplace else. We just can't afford it."

"With Valley, I can call and have equipment running by morning. We have to have dependable service and parts availability so we can get our workers back on the job."

Valley keeps in excess of one million dollars worth of spare parts and materials in inventory at all times. And fast parts delivery is backed up by our skilled field repair teams, dispatched from factory to your winery to get you back on stream as quickly as possible. Think of us as part of your team.

Responsible, responsive service *when you need it*—it's something you really can't import. Think about it. AMETEK, Valley Foundry & Machine Div., 2510 S. East Ave., Fresno, CA 93706. Tel: (209) 233-6135.

MADE IN USA

AMETEK
VALLEY FOUNDRY & MACHINE DIVISION

SCOTT TALKS #2: Another in a series of informal discussions.

"I'm not the Customer Service Department, the whole company is the Customer Service Department."

Margaret Karrer,
in charge of orders, inquiries, typing
lab reports and...customer service.

"Since my voice is the one you hear most when you call Scott Labs, I suppose it's natural to assume that actually I'm sort of a traffic cop."

Margaret is indeed a vital nerve center to Scott Labs, handling orders for corks, chemicals or equipment and funneling inquiries to the right person in the company. She does it with such tact and discretion one customer calls her "Mom." But Margaret's ability is the product of more than a pleasant voice and a nearly photographic memory...it is her background that sets her apart from what is usually called "customer service." Her degree in Biology from UC Davis gives insights into customer needs and allows her to respond much faster.

"Preparing a Lab Report is easier when you actually understand the material. When the slashes, dits and dots make sense to me, I can help it all work better for the customer."

Margaret is just one example of the quality of personnel you encounter when you do business with Scott Laboratories. Across the board, through salespeople, lab technicians, cork processors, equipment mechanics, and administrators, each is dedicated to customer service...and satisfaction.

That's the way it's been for 50 years, and that's the way it's going to be.

Just ask Margaret.

Dear Margaret:

- ☐ Tell me who at Scott Labs can help us with a filtration problem.
- ☐ We're having a cost control problem. Could you arrange to have one of your field people make one of those "No-Charge Surveys" I've heard about?
- ☐ You sound like you have enough phone calls to answer, so why don't you mail me literature on what Scott Labs is up to these days.

Name _____ Title _____

Firm Name _____

Address _____

City/State/Zip _____

Telephone _____

SCOTT LABORATORIES

P.O. Box 9167
San Rafael, CA 94912
(415) 457-8460

Laboratory services, supplies and equipment for the wine industry since 1933.

In Canada: Scott Laboratories, Ltd.
950 Brock Road South • Pickering, Ontario, Canada L1W 2A1 • (416) 839-9463

Letters

Dear Editor:

Your September/October 1985 cover has a beautiful photograph of one of Trefethen Vineyards' harvesters. Thanks also for the mention on p. 47 of Trefethen's Eshcol White and Eshcol Red proprietary wines, which we think are some of the best wines you can find for the price.

I am a viticulturalist and know two or three other women in viticulture, but there aren't many of us and most of the women I've been able to track down who work in vineyards, and who have also had some academic training for it are fairly new in the field, so to speak. None of us are in positions of major responsibility—yet.

MS Magazine (July 1985) can do a story about how women have broken the barriers at wineries, but the same can't be said yet of the vineyards. It's due to a combination of factors besides plain old sexism, I think, including the fact that hiring viticulturalists is a rather new concept for most grape farmers.

But that will change fairly quickly as growers emphasize quality over quantity—and as all those vines planted in the 1970s mature, so that growers are looking at vine maintenance, not planting. The economics could improve a bit, too. If you can't afford tillage and pest control, you certainly can't buy the luxury of a viticulturalist.

I enjoy your magazine, and I think it's the best technical publication we've got. So keep up the good work.

Best Regards,
Anna Darden
Viticulturalist
Trefethen Vineyards, Napa, CA

Dear Editor:

I greatly enjoyed your review on Chambourcin—a grape which holds considerable promise for the East. In Missouri this grape is a little cold-sensitive, but produces a luscious, fruity red wine which does have some ageing potential.

Poor Dick Naylor goes out of his way to invent serendipity—he is indeed correct that Foch blends well with Chambourcin to make a Red Reserve—however, in Missouri these varieties ripen at least 30 days apart and a field blend would have to be made of rotten Foch or green Chambourcin. I believe Dick knew what those small dark berries were!

We recently won a gold medal at the Missouri State Fair for our Chambourcin, which our winemaker, Bill Lamberton, made with 8% Catawba to accentuate the fruit.

Sincerely,
Jean-René DuPont
Moore-DuPont Wineries
Benton, MO

Dear Editor:

First, I would like to say that I think you put out a really excellent publication. I am a 'serious' amateur grape-grower and winemaker.

I have a question about Lisa Van de Water's story on "Making Fermentation Decisions" in the July/August 1985 *PW*. On page 59 she states, "Common temperatures for whites are 50-60°F," and "Late harvest-type whites may be fermented long and slowly at a cold (35-45°F) temperature to encourage glycerin formation."

In the July/August 1985 *WINE EAST* (L & H Photojournalism, 620 N. Pine St., Lancaster, PA 17603) Jacques Recht wrote a story called "Fermentation Monitoring." On page 16, Recht states "It has been proven that very cold fermentation does not produce the best wines. At temperatures below 15°C, the glycero-pyruvic fermentation is very slow, and wine without glycerin tends to be 'scratchy' to the taste."

If I'm reading correctly, Recht implies that a fermentation temperature under 60°F can lead to a low-glycerin wine, while Van de Water says that cold fermentation will encourage glycerin formation.

I'm no chemist. What do you say is the answer?

Yours truly,
Penn T. Clissold
Allentown, PA

Dear Mr. Clissold:

I applaud your meticulous reading to catch the potentially conflicting opinions. I have checked with Lisa and several other sources. There is at present no definitive research that I am aware of to answer the question of glycerin production by fermentation temperature. It certainly would be a worthwhile project!

Lisa's statement is based on reference to *Technology of Winemaking* by Maynard Amerine and from experience of winemakers she knows. Mr. Recht is not necessarily in error. As with so many guidelines in winemaking, the end result will depend on the grapes. Different cultivars in different locations from different vintages will respond differently.

The most recent information published on glycerol is a research note by A.C. Noble and G.F. Bursick in *Am. J. Enol. Vitic.*, Vol. 35, No. 2, 1984 which discusses the contribution of glycerol to taste, which you might want to review.

Thanks for the pat on the back and your letter.

Don Neel, editor

TONNELLERIE MERCIER

Quality & Tradition

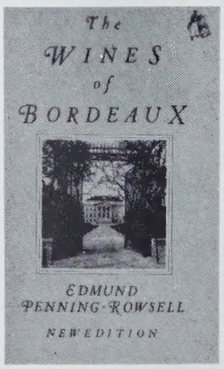
French Oak Barrels & Tanks

- Inventory in Stock Locally
- Warranty Work and After Sales Service
- Quotation on Requirements

Contact our Agent:

Bob Rogers
CUSTOM COOPERAGE
1194 Maple Lane
Calistoga, CA 94515
Tel.: (707) 942-6902

NEW EDITION!
WINES OF BORDEAUX



"The best single book on Bordeaux wine in any language"

* Current through '84 Vintage Decanter
* Comprehensive, Scholarly, 606 pages
* Essential new insights for Bordeaux buyers & investors.
* Detailed Statistics on all Chateaux, Cepages and prices!

$12.95 each
Quantity discounts available.
ORDER NOW! TOLL FREE!
800 242-9462
in Calif 800 231-WINE

The Wine Appreciation Guild
155 Connecticut St.
San Francisco, CA 94107

The Grape-growing & Winemaking Review
PRACTICAL WINERY

NOVEMBER/DECEMBER 1985 VOLUME VI, NO. 4

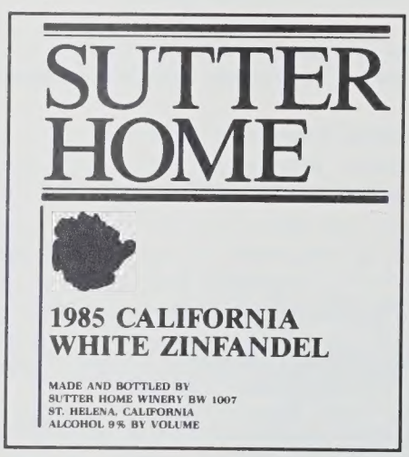
Features

16 Wine Unit Costs: Treatment of Processing Costs ..... *George M. Schofield*
21 Winery Year-End Tax Strategies ..... *John R. Reimann & Susan Evans*
26 Pruning Safety ..... *John Robeson*
28 Vineyard Profile: Diamond Mountain Ranch ..... *Don Neel*
30 The Two Faces of White Zinfandel ..... *Joe Tarantino*
34 Beringer's New Research Program ..... *Diane Mayfield*
36 The Taylor Wine Company's Developmental Winery ..... *Ray & Eleanor Heald*
38 Burgundian Viticulture: Vine Varieties-Part II ..... *Don Blackburn*
41 Restaurant's Success With New York Wines ..... *Ray & Eleanor Heald*
43 Méthode Champenoise: Juice Treatments ..... *Bruce Zoecklein*
46 Holiday 'Stocking Stuffer' Guide
48 Northern California Vines Threatened by Phylloxera? ..... *Mike Marcley*

See page 28.

Departments

7 In The Cellar ..... *Jake Lorenzo*
10 Wine Lawyer ..... *R. Corbin Houchins*
14 Winery Water & Waste ..... *David Storm*
51 Proprietary Wine Survey
52 Services For Grapegrowers and Winemakers
54 Index of Advertisers
54 PRACTICAL WINERY Subscription Form
54 PRACTICAL WINERY Binder Order Form



See page 30.

Editor and Publisher: Don Neel
Managing Editor: Diane Mayfield
Writing Staff: Don Blackburn, Scott Clemens, Richard Crichton, Peter Gamble, Nancy Lynn Gray, Ray and Eleanor Heald, R. Corbin Houchins, Pat Howe, Jake Lorenzo, Mike Marcley, Bruce Rector, George Schofield, Clark Smith, David Storm, Pat Summers, Lisa Van de Water, Bruce Zoecklein
Advertising Manager: Susan Malone
Circulation Manager: Kay Dorson
Printing: Barlow Printing, Inc., Petaluma, CA
Production: Lisa LaPrath
Typesetting: Barlow Typesetting, Inc., Petaluma, CA

Offices: Advertising, Circulation, Editorial: 15 Grande Paseo, San Rafael, CA 94903 USA (415) 479-5819.
PRACTICAL WINERY (ISSN 9739-8077) is owned and published by D.F. Neel. Editorial/Business Office: 15 Grande Paseo, San Rafael, CA 94903 (415) 479-5819. Published bi-monthly at subscription rate of $24.00/year. Outside the United States, please add $8.00US sea mail; $20.00US, air mail. Application to Mail at Second-Class Postage Rates is Pending at San Rafael, CA. Postmaster; please send change of address to 15 Grande Paseo, San Rafael, CA 94903. Back issues: $5.00 prepaid. News media may use no more than 1/4 page of material per issue provided that *PRACTICAL WINERY* is credited.

See page 41.

"Wines are so much better than whisky. Whisky is a conversation killer, while wines encourage fascinating talk."

Charles Frankel

Cover

Diamond Mountain Ranch Vineyard owned/operated by Sterling Vineyards, Calistoga, CA
Photographed by Don Neel

1985 Practical Winery Stories

FEATURES	ISSUE
Archie Bunker vs. Baron Rothschild *V.L.Singleton*	M/A
Benefits of Cover Crops *P.Summers*	M/A
Beringer's New Research Program	N/D
Canes or Cordons for Premium Grape Varieties? *M.Marcley*	S/O
Capsules: The Silent Salesmen *T.Munro*	M/J
Chambourcin Varietal Analysis	J/A
Cedar Hill • Chaddsford • Hillcrest • Naylor	
Presque Isle • St. Julian • Tewksbury • Truluck	
Chardonnay Suffers Freeze Damage *P.Summers*	J/F
Contribution of Grape Flavor to Wine Quality *C.R.Strauss, B.Wilson, P.J.Williams*	S/O
Creating a Microclimate *P.Summers*	M/J
Crop Prediction Techniques *P.Summers*	J/A
Determining Fine Wine Characteristics *S.Clemens*	M/J
Determining Vine Nutrients *M.Marcley*	M/J
Grafting Techniques *M.Marcley*	M/A
How to Order a Wine Tank *D.Jones*	M/J
Howe to Competitively Judge Wines *P.Howe*	J/F
Improved Irrigation at Buena Vista	J/F
Juice Bentonite Fining *D.Ramey*	M/J
Making Fermentation Decisions *L.Van de Water*	J/A
Méthode Charentaise *R. & E.Heald*	S/O
A Moveable Cellar *P.Moser*	M/A
New Building Caps Sattui Expansion *D.Mayfield*	S/O
New Dual Irrigation Installation	M/A
New Protein Removal Process *Drs. W.Welsh & Y.Parent*	M/J
Northern California Vines Threatened by Phylloxera? *M.Marcley*	N/D
Night Hand Harvesting *C.Smith*	M/J
Pierce's Disease Reappears in Sonoma County *M.Marcley*	S/O
Potassium Balance in Vines *M.Marcley*	J/F
Pruning Safety *J.Robeson*	N/D
Purchasing a Wine Press *D.Power*	M/A
Rapid Cold Stabilization in France *S.Taylor*	M/A
Restaurant's Success with New York Wines *R. & E.Heald*	N/D
RMS Alambic Brandy—French Tradition & California Innovation	S/O
Sauvignon Blanc & Food *H. & B.Thompson*	M/J
Sauvignon Blanc Varietal Analysis	M/J
Creston Manor • Inglenook • Martin Bros.	
Robert Mondavi • Silverado • Simi	
Secondary Closures Purchasing Guide	M/J
Seeding and Maintaining a Good Cover Crop *P.Summers*	S/O
Sémillon Varietal Analysis	J/F
Ch. Ste. Michelle • Columbia • Congress Springs	
Montevina • Robert Pepi • Wente Bros.	
The Taylor Wine Company's Developmental Winery *R. & E.Heald*	N/D
Two Faces of White Zinfandel *J.Tarantino*	N/D

FEATURES	ISSUE
Vineyard Profile: Sterling Vineyard's Diamond Mountain Ranch	N/D
Weed Control Simplified *M.Marcley*	S/O
Winery Year-End Tax Strategies *J.Reimann & S.Evans*	N/D
Wood Case Purchasing Guide	S/O
Yeast Guide	J/A
Yeast Hulls *D.Blackburn*	M/J
DEPARTMENTS	**ISSUE**
Burgundian Viticulture *Don Blackburn*	
Part I	J/F
Soils	M/J
Vine Varieties, Part I	S/O
Vine Varieties, Part II	N/D
In the Cellar *Jake Lorenzo*	
Wine Tasting Tips	J/F
Cellaring Wine	M/A
Wine Industry Personalities	M/J
Children	J/A
Drunk Driving	S/O
Wine Writers	N/D
Méthode Champenoise *Bruce Zoecklein*	
Viticultural Considerations	M/J
Cultivar Selections	J/A
Pressurage	S/O
Juice Treatments	N/D
Proprietary Wine Survey	
Leeward • Mountain House • Pat Paulsen • Trefethen	S/O
Buena Vista • Cedar Hill • Naylor	N/D
Quality Approach *Bruce Rector*	
Award-Winning Wines	J/F
Floor Coatings	M/A
Wine Lawyer *R. Corbin Houchins*	
Trademark Law	J/F
Distribution	M/A
Market Intervention	J/A
The Cost of Regulation	N/D
Wine Unit Costs *George M. Schofield*	
The Whys, Whats, & Hows	M/J
Grape Cost Determination	J/A
Treatment of Processing Costs	N/D
Winery Finance *Richard Crichton*	
Sources of Finance	M/A
Estate Planning *(Greg Scott)*	J/A
Winery Water & Waste *David Storm*	
Winery Waste Recycling	J/F
(Un)treatability of Winery Wastewater	M/A
Wastewater Regulations	M/J
Operation & Maintenance Tips	J/A
Assessments of Changing Technologies	S/O
Winery Odors: Achieving 24-Hour Protection	N/D

Everyone with more than a cursory interest in grape-growing and winemaking should be reading **PRACTICAL WINERY.** *1985 back issues are available for $5.00 each, including postage. Please mail your request together with your payment.*

Subscribe now!

PRACTICAL WINERY • 15 Grande Paseo • San Rafael, CA 94903

In The Cellar

Jake Lorenzo

Editor's disclaimer: We are printing this column with some trepidation. First, the opinions are Jake's, and PW intends no potshots at the fine writers mentioned in this column. Second, readers try Jake's Junkie Drops at their own risk. Remember, the first one's free, but you can't eat just one.

Close your eyes. Conjure up an image of a private eye. What do you see?

A sad-faced man with a twinkle in his eye. Someone with that knowing Humphrey Bogart-Robert Mitchum tired grace and vulnerability. A simple, honest sort who doesn't mind mixing it up with the tough guys. A romantic who's always in love, but never quite gets the girl.

Forget it. That's not the way it is at all.

Private investigators are more often nice guys just trying to get by. Most of our work is tedious and rarely life-threatening. Much of it is mundane. To supplement our income, we often work as repossessors, process servers, security cops, and bodyguards.

We spend a great deal of time sitting and waiting. We know how to use libraries. We are accustomed to scanning microfilm, digging through old newspaper files and dealing with bureaucrats to get into obscure government records.

We get paid by the hour. Sitting and waiting has its rewards. The trick is to fill the hours. Personally, I like to read. Mostly fiction.

I read lots of detective novels for laughs, especially on planes, but I prefer off-the-wall modern fiction or just out-of-mainstream classics. My favorite book of all time is *Catch 22*, for very Jake Lorenzian reasons. I read it at least once a year just to reassure myself all is askew with the world.

For those of you who know how to read, here's a list of some of my finds: *Bless Me Ultima*, by Rudolfo Anaya, the classic in Chicano literature; *Soul Catcher*, by Frank Herbert, famous for *Dune*, but insightful about Indian life; *Population 1920*, by Jim Thompson, classic off-the-wall; almost anything by Harry Crews; early works by Don DeLilo and Robert Coover; all of John Steinbeck; most of John Irving, Celine, Hemingway, Thomas Berger, and Elmore Leonard; most recently, *Color Me Purple*, by Alice Waters. I bring this up for several reasons. First, in addition to being a private investigator, I fancy myself a wine columnist. After all, I've been writing these columns for more than three years now. I know it's egotistical, but I like to think that I'm one of the best wine columnists in the business. I mean, who would you rather read: Bob Balzer, Terry Robards, Norm Roby?

Jerry Mead is famous for his industry gossip, but he'll be blown away when my first novel hits the bookstands. The title is "Kiss Off." The plot involves a blackmail ring that dresses up underage girls to look older than they really are and takes them to wine tastings, where they seduce winemakers, take photos of them in compromising positions, and blackmail them. The hero, based on yours truly, breaks up the ring by disguising himself as a flasher to gain acceptance into the inner circle of the blackmail ring. Eat your heart out, Jerry.

And Tony Blue, who has never recovered from that night he OD'd on Sauternes and fell asleep reading *The Book of Lists*, is going to plotz when he sees my new cookbook, *In the Kitchen with Jake Lorenzo.*

Here are a few sample recipes:

Steak Jake

3 T scallions
3 T olive oil
3 T chives
3 T parsley
1 T Worcestershire sauce
4 filet steaks
¼ c. aged tequila

Saute all ingredients except the steaks in 1 T olive oil. Set aside. Saute steaks in remaining oil in *hot* pan. Top each steak with some scallion mixture. Flame with warmed tequila. Spoon pan juices over steaks and serve.

Tomatoes a la Nicki

6 tomatoes
1 c. basil
⅓ c. olive oil
¾ c. pine nuts
½ c. Parmesan cheese

Peel and core tomatoes. Turn upside down and salt. Puree ingredients, stuff tomatoes, and chill.

Jake's Junkie Drops

2 egg whites
1 t vanilla
1/8 t cream of tartar
1/8 t salt
⅔ c. sugar
1 pkg chocolate chips

Beat egg whites until soft peaks form. Add vanilla, cream of tartar, and salt. Gradually add sugar, beating until whites are stiff. Fold in chocolate chips. Grease pan lined with wax paper. Bake at 300° for 25-30 minutes.

See, Tony, I managed to get 2 lists in 1 column.

I know this is rambling, but I hope it's been an interesting and informative ramble. Cook up these recipes, wash them down with some great California wines and then read yourself to sleep with a good book.

In the meantime, I'll probably be sitting in a cold car, listening to the radio, reading, sipping a little Hornitos, waiting for something to happen, but at least I'll be getting paid.

Wine East

The lively magazine that keeps you up-to-date on the news of grapes and wine in Eastern North America.

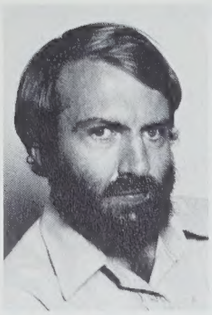
With 325 wineries located between the Rocky Mountains and the Atlantic Coast, wine professionals and consumers are discovering the importance of keeping informed about this rapidly expanding wine region. Published bi-monthly, *Wine East* contains winery profiles, in-depth features on Eastern grapes, wine and winemaking, and human interest stories centering around Eastern wine people.

Subscription rate: $10.00 for one year ($15.00 in Canada and overseas, payable in U.S. funds)

Write for a free sample and/or a list of other publications available about the Eastern wine industry.

L & H Photojournalism
620 North Pine Street
Lancaster, PA 17603

Eastern Wine Publications



Free Run

Don Neel

Several more new wine-oriented books have arrived in time for Christmas gift buying. We offer you a brief abstract and evaluation of each to assist your book buying decisions.

A Day Without Sunshine
by Les Whitten
Atheneum, New York, 341 pp, $16.95

If you tire of reading wine texts and enjoy an action-packed mystery now and then, here is one set in the international wine trade. There is much wine lore and material about the grape-growing trade written with a hard reporter's eye that includes brilliant plotting along with an undercurrent of wild humor.

Whitten, a prize-winning investigative reporter, consulted a lot of experts on wine, and forensic pathology, including Archie Smith III of Meredyth Vineyards in Virginia, in preparing this novel. The plot involves an Austrian wine grower who is struggling to avoid selling her 400-year-old vineyard to a rich and mysterious cartel. She recruits a happily retired investigative reporter to help her. The reporter's quest for the truth takes him to vineyards in California, dank caves in France, and to a wine auction in Washington, D.C.

In addition to buying Austrian vineyards, the bad guys, a group of renegade European wine magnates plus one American adventurer, attempt to use an exotic strain of insect to wipe out the California wine industry and monopolize wine all over the world. The idea for the book came from Sidney Moore, who runs a wine-oriented store in Washington, D.C. and was thinking about a story on how the London wine market works.

The author is very patriotic, with a deep love of American wines. The book is a painless way for people to learn about something like wine that can make life a little more glamorous, a little more, well, joyful. Whitten believes that there's nothing much better at a picnic than hotdogs and spritzers—white wine and soda. He even believes they ought to sell wine at the ball park!

Vintage Places—
A Connoisseur's Guide to North American Wineries & Vineyards
by Suzanne Goldenson
The Main Street Press, 276pp, $8.95 paperback, $14.95 flexible cloth

Vintage Places is a detailed travel guide to American and Canadian wineries and vineyards. Among the recently cultivated wine regions included in the book are the Hill Country of Texas, the Delaware Valley, the eastern shore of Long Island, the Willamette River Valley of Oregon, the western hills of Connecticut, the Shenandoah Valley of Virginia, and the Missouri River Valley. In addition, such traditional grape-growing regions as the Sonoma and Napa Valleys of California, the Finger Lakes and Hudson Valley of New York State, and the Great Lakes coastal areas of northwest Pennsylvania, northern Ohio, and western Michigan are included.

Vintage Places—organized regionally from New England to the Northwest, and with a section on Canada—provides travelers with basic information on grape varieties cultivated and wines offered, tours, picnicking facilities, tastings and festivals, and hours of operation. Travel directions are provided from the nearest city. The text also gives the reader a concise overview of each winery's operation and its history.

Suzanne Goldenson, a Princeton, RI, food and wine writer, chose over 200 wineries which offer premium wines, have attractive and educational facilities to visit, and are estate wineries with vineyards planted to *vinifera* grapes. The book is a good reference guide to many wineries with plenty of interesting details.

Winegrowing in Eastern America
by Lucie T. Morton
Cornell University Press, 224 pp, $24.95

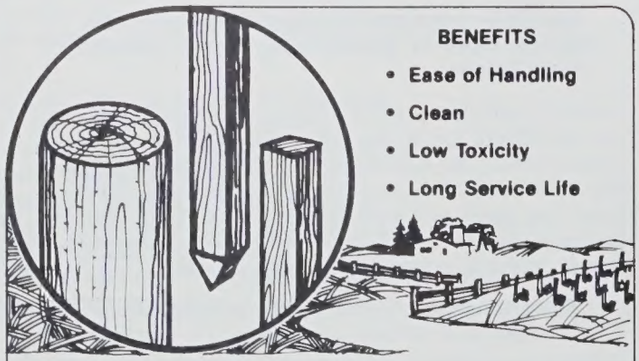
Morton has put together a well-written, comprehensive guide on many of the new vineyards and wineries in the eastern two-thirds of the United States. She traces the history, economics and present state of viniculture in 37 states and two Canadian provinces.

Region by region, she explores climates and cultivars with assessment of those most likely to produce premium wines. She looks at the maze of farm winery laws and regulations in addition to the proper methods of site selection for training, growing and pruning of vines. She shows that the balance in winemaking has shifted from art and tradition to science and education. Sobering questions about the wine grape business for neophytes are addressed.

The book is well-illustrated, not a coffee-table book, but a

ROUND POSTS AND GRAPE STAKES

Each post and stake is pressure treated with Osmose® brand C.C.A. wood preservative and meets or exceeds all current A.W.P.A. standards.



BENEFITS
- Ease of Handling
- Clean
- Low Toxicity
- Long Service Life

JASPER WOOD TREATING, INC.

P.O. Box 11498 Eugene, OR 97440
Contact Bob McBride (503) 342-2300 (out-of-state) 800-547-6063

Osmose® wood products

good reference book for amateur and professional grape growers and winemakers, horticulturists, wine educators and restaurateurs.

A Dictionary of American Wines
Ralph E. Hutchinson, Richard Figiel, Ted Meredith
Beech Tree Books, New York, 224 pp, $19.95

This is a lightweight book that attempts to cover a lot of territory—American wines—and maybe it was too much for three knowledgeable writers, or perhaps it was the fault of the editors. A great many of the 'right' knowledgeable people were credited in the acknowledgements for their assistance, but the contribution does not show up in the finished product.

'Dictionary' is defined as a reference book. This 'dictionary' tries hard to be up-to-date—it does mention the death of Gino Zepponi, part-owner of ZD Winery, earlier this year—but is inconsistent and inaccurate. There is too much opinion on wines produced; the title implies more objective information.

The book promises essential data on more than 500 leading wineries. But it left out San Martín Winery, started in 1906, and San Pasqual Vineyards, started in 1973, both leading producers in their respective California regions. Under Buena Vista Winery were included leading wines such as Burgundy and Chablis, which have not been made since 1981. These are three unacceptable errors, and I didn't take the time to check closely each section of the alphabet.

Meredith had previously written *Northwest Wine*, a well-written, easy-to-read book covering Oregon, Washington, and Idaho. That same style is missing in this book. William I. Kaufman, in his *Encyclopedia of American Wine*, did a much better job with the dictionary/encyclopedia concept.

I am sorry, gentlemen, this book should definitely remain on the bookstore shelf or better yet, back on the editor's desk. It would not be a valuable addition to any winemaker's or wine consumer's library.

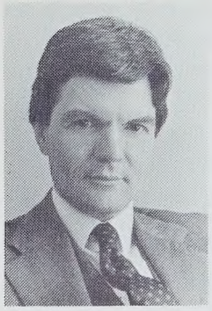
Windows on the World Complete Wine Course
by Kevin Zraly
Sterling Publishing Co., Inc. New York, 192 pp, $18.95

This book would make a very nice Christmas gift for a wine consumer. It is meant to be read in order that the reader learn about major red and white wines and wine-producing regions of the world. It is not a coffee table book—no four-color pastoral pictures.

Zraly offers a direct, no-nonsense approach which includes interesting trivia, witticisms, and humorous insights. The book is peppered with informative charts, maps, wine labels, sidebars, questions and answers, drawings, black-and-white photographs and enjoyable *New Yorker* cartoons.

Special chapters cover restaurants and how to create a successful wine list, how to price wines, and how to present them. Good information, for both retaurateurs and consumers can use it as a measuring stick. A list of restaurants in the USA and abroad which have good wine lists is included as are suggestions for over 100 wine and food combinations from winemakers.

The book is broken up into chapters by geographic regions of the world. I might quibble with Zraly's lack of coverage on Oregon, Washington, Idaho, Virginia and Michigan, but he does an adequate job on California and New York. All in all, a very informative, easy-to-read book that I recommend for wine consumers. I suggest wineries with tasting rooms might add this book to their non-wine items for sale.



The Wine Lawyer

R. Corbin Houchins

The Cost of Regulation, Part II

In *PW* Vol VI#2 (July/August 1985), we observed that there are hidden costs in the conflict between the alcoholic beverage regulatory system and modern marketing methods. Let's look now at an example. We'll take a fairly mainstream development in consumer goods marketing that wineries generally do not pursue because of red tape: direct mail.

Reaching Your Customer Directly

To a rational observer from another planet (which may be the place to look for rationality in wine law, come to think of it), wine would seem a natural for treatment à la Harry and David or The Sharper Image. Indeed, many small wineries sell a large percentage of their output—sometimes all of it—to customers who are already on their mailing lists. Why not go for catalogue sales wherever the customers are?

Regulatory Obstacles

So far, the answer has been that the regulatory problems seem overwhelming. Federal law flatly prohibits using the mails to convey intoxicating liquor, but raises no objection to contract carriers. With the states, however, it is a different story.

PW readers may recall the mail order wine debacle of a couple of years ago (*PW*, Vol.IV, No.2, July/August 1983). United Parcel Service is an important carrier of mail and phone-order wine within California. Many of its customers urged it to deliver to other states as well (as it had been doing unwittingly with some shipments of 'grape juice' and other innocuously labeled goods).

Astoundingly, the company announced that it would deliver wine to a large number of states—without looking into the liquor law compliance implications. Following a storm of protest by state regulators, UPS made an about-face and declared that it would make no interstate deliveries of wine at all. Many people were left with the impression that there is no way to get the job done.

Difficult, Yes

But is it hopeless?

At the moment, about the only interstate direct marketing of alcoholic beverages is similar to telegraph ordering of flowers. An organization similar to Florists' Transworld Delivery (FTD) will transmit an order from one member to a member in another city, who fulfills it by making a local delivery.

For wine, that kind of local fulfillment house approach removes one of the principal incentives to do direct marketing, which is getting 100% of the margin between retail price and winery cost. Additionally, even the FTD approach runs into some regulatory problems.

Premium Varietal Junk Mail

The threshold problem is not with the delivery method, but with the means of soliciting the order.

The front line way to sell by catalog is to buy a mailing list (say, subscribers to *Gourmet* who are also subscribers to the American Medical Association Journal, as a not-too-fanciful hypothetical), hire a catalog production contractor and essentially publish one issue of a full-color magazine. A more practical route for wineries with limited budgets is to get into a catalog that is being produced by someone else for a percentage of the sales revenue or use a more modest mailer.

In either case, the pitch for the wine is disseminated by direct mail to people who did not specifically ask for information about the product, and therein lies the first regulatory hurdle.

State law may prohibit unsolicited mail ads for alcoholic beverages. More widely, where state law does not specifically permit them, some regulators tend to rule adversely. The result is a patchwork requiring the winery to limit the sales offer to certain states.

Well, that is not fatal. There is a pretty good market out there in the states where the mailer itself is legal. We've all seen 'offer not good in' disclaimers on promotions for other products, usually in connection with games of chance. Furthermore, the problem seems solvable even in the off-limits states, albeit at double the mailing cost, by exercising the (probable) First Amendment right to ask the consumer if he or she would like to receive an offer to purchase wine.

Without your label it's only wine

You make wine; we make labels.
Together we make a difference.

BLAKE PRINTERY

Call or write for a brochure
2222 Beebee Street • San Luis Obispo, California 93401
In California Call Toll Free 800-792-6946
Outside California 805-543-6843

USED BARRELS FOR SALE

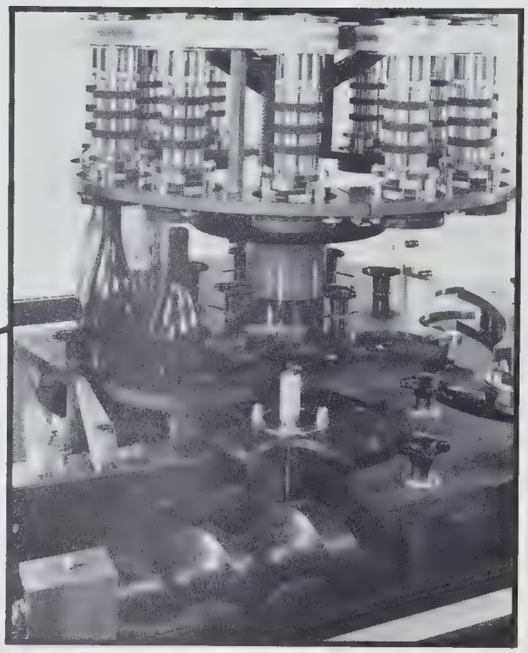
60 gallon French Oak barrels . . . $30 each
50 gallon American Oak barrels . . . $25 each

For information call Joseph Phelps Vineyards
(707) 963-2745

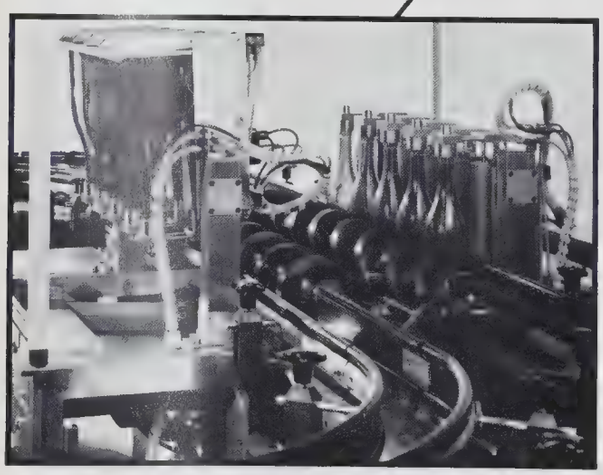
Sick
INTERNATIONAL®
Serving Winemakers throughout the world since 1909.

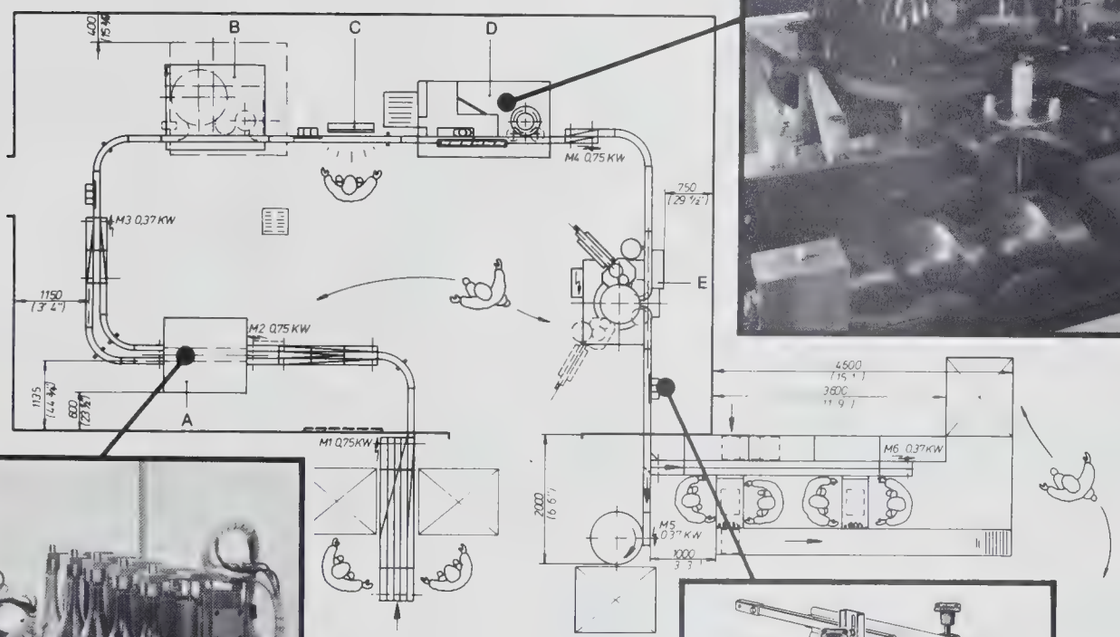
WE DESIGN, MANUFACTURE AND INSTALL COMPLETE BOTTLING LINES.

OTTO SICK Capsule Spinners. Used by leading wineries worldwide. Infeed timing screw is standard, even on small machines. Center star and counter rails provide for positive bottle control during entire spinning cycle. Spinning heads have outside spring assembly for convenient adjustment and easy replacement.

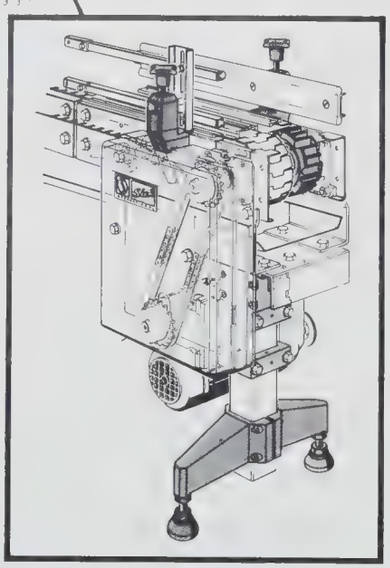


OTTO SICK Bottle Spargers. Bottles are inverted. Forceful removal of carton dust and impurities by means of long-spout air- and/or water-action. Automatic, programmable sparging with inert gas.





A air cleaner / sparger
B filler / corker
C inspection screen
D capsule applicator / spinner
E labeler



OTTO SICK Conveyors. State-of-the-Art Design and Quality Construction. Dump tables with automatic single-filing and all types of accumulation tables.

We would be glad to submit a layout proposal and equipment quotation to meet your specific needs. There is no obligation or charge.

OTTO SICK CORPORATION, P.O. Box 1101, Palo Alto, California 94302
415/858-1090 • Telex 348362

Second Legal Hurdle

Even if you do not have an advertising medium problem, another regulatory issue must be dealt with.

Advertising by a winery that refers to a specific retailer raises tied-house issues because of the regulatory theory that the mention constitutes a gift of value to the licensee. Thus, any local fulfillment system would have to be perceived by the regulatory agency as merely passing along an order, and not as providing marketing or advertising services to any particular retailer.

The likely result would be an ad which simply directs the recipient to the outlet of his or her choosing. Federal regulators will accept an ad that lists substantially all the retailers in a given market as not benefitting a particular licensee, but the state types are not always even that accommodating.

TWO NEW SOFTWARE TOOLS

FROM JAMES VAHL

THE GRAPE-GROWER'S DATABASE

manages information about your farming operation on a block by block basis.

THE WINEMAKER'S DATABASE

is a complete bulk wine information management system, customized to your needs.

Each of these products:

- ✶ runs on any hard-disk personal computer
- ✶ is solidly written, with consistent menus and commands, extensive error checking, full screen editing, real time data entry, etc.
- ✶ features powerful and flexible inquiry into the data
- ✶ comes with source code
- ✶ is professionally and personally supported

JAMES VAHL Ph.D. ENOLOGY CONSULTANT

Premium Winemaking, Winery Quality Control, Winery Design, Trouble Shooting and Computer Applications

707 963-5423

1361 ST. JAMES DRIVE, ST. HELENA, CA 94574

A Practical Killer

The fundamental problem with the FTD approach is that the private licensed store that has your wine is normally not going to be willing, or in some places even permitted by the regulators, to supply the wine otherwise than as if the customer had simply bought it over-the-counter in the first place.

Local fulfillment, then, offers no price or delivery benefits not otherwise available and fails to provide a mechanism for bringing to the consumer any wine that is not distributed through normal channels. Thus, the whole scheme is at best a way of encouraging gifts by one consumer to another and falls far short of justifying a direct mail campaign.

Finding a Route

Is there a more direct way to get the wine to a mail order customer's doorstep than by local fulfillment?

If you can find a willing contract carrier, the answer is a qualified yes. Let's look in more detail at the difficulties encountered by UPS.

Basically, the regulators have two objections to direct shipments to consumers. First, they circumvent importation procedures that are designed to protect state tax revenues, the economic interests of state licensees who sell liquor locally and the bureaucracies whose product is procedures. Secondly, they permit alcoholic beverages to fall into the hands of anyone the unlicensed carrier is willing to deliver to, notably minors.

There is no reason in theory why both these objections could not be met to the satisfaction of the states involved. The difference between theory and practice has less to do with the law than with relative political influence of the economic interests affected by alternatives to three-tier distribution.

Delivery to Minors

The unauthorized recipient objection does not seem very weighty. Even now, contract carriers are making intrastate deliveries pursuant to contract terms that require positive identification of the recipient as the consignee and as of lawful age to purchase wine. Regulators tend to be distrustful of businesses, such as delivery companies, they cannot control with the threat of license revocation, but there are other means to provide sanctions in case of violation of liquor laws, including penalty bonds and proceeding against the shipping authority or winery license of the seller.

The Balkan Toll-gate

The real red tape lies in the importation procedure. A typical sequence for orderng a wine that is not available in the local wine shops is to go in person to the liquor board office, fill out a multicopy form, prepay the tax on the proposed shipment and receive a validated copy of the form to allow receipt of the wine.

One then waits while the agency sends a validated form to the proposed shipper to allow entry into the state, with the condi-

DON'T MAKE WINE WITHOUT IT!

Replacing your wooden bungs this year? Fabricated from high grade silicone, the Boswell bung easily outperforms its fir and redwood ancestors. The Boswell bung puts a stop to wicking and requires no pretreatment.

Easy to place and remove, the Boswell bung provides extra protection for your valuable barrels. Best of all, the Boswell bung's virtually infinite lifespan ends the problem of periodic replacement. The Boswell bung. Cost efficient. Pure and simple.

For more information contact The Boswell Company
36 Crane Drive, San Anselmo, CA 94960
415 · 457-3955

THE BOSWELL COMPANY

tion that the wine be delivered only to the person named and only upon surrender of the copy given to the applying individual. More copies fly about after the delivery. Generally, there is a limit on the amount of wine that can be in a single shipment.

There are numerous variations on the foregoing theme (with the control states sometimes more accommodating than the licensee states for the aforementioned political reason), but the pattern is generally sufficiently involved to discourage any kind of modern catalog sale approach. Nevertheless, even here solutions could appear if there were enough potential volume to induce carriers, wineries or catalog houses to get creative about dealing with the red tape.

Some Trial Balloons

There is no universal solution presently, but one can readily think of some possible lines of attack, provided the regulators are not engaged in protecting the economic interests of competing licensees.

As an example, I see no reason why a regulatory agency should not accept paperwork done by an attorney-in-fact (as distinct from an attorney-at-law) for the recipient. If the order form contained a power of attorney, and someone in the key direct mail markets would handle the importation permit process *en masse* using computerized forms and executing the requisite signature the same way the treasurer of IBM 'signs' all those dividend checks, then mail the authority to receive to the customer, the transaction cost could be kept under control.

The high-tech approach is feasible only for an organization that can generate the volume to justify the costs of setting it up. Nevertheless, there are ways a small winery or group of them could deal with the obstacles. I would not be surprised if the politics of the issue limited any practical solution to wineries not authorized to ship otherwise into the state or to wineries below a certain annual production volume.

The Upshot

That it should be so difficult is an annoyance in itself. That the barriers to marketing innovation should be more damaging to the small winery producing wines in limited quantity than to the producer whose tax revenues are significant is an injustice besides. Such inequities based on departures from the fundamental economic policies that underlie the legal structure applicable to the rest of the economy are, however, common in our industry.

Putting aside complaints about how the world is, one can draw a few useful lessons from all this:

(1) Direct mail selling is not unlawful in itself. The legal problems are considerable, but broken down into components they do not seem insoluble. As usual, what is commonly thought possible under the law is somewhat narrower than what may be possible in reality.

(2) Where large companies like UPS pull out, there may be an opportunity for aggressive local delivery firms that are willing to put some effort into setting up procedures for complying with regulatory requirements, but it is up to the winery that wants to do direct mail selling to devise a method for each key marketing state.

(3) Although the cost per thousand impressions is always going to be high in comparison to, say, local radio, small companies may find that a direct mailer makes sense for a specific campaign. If you use one, your legal adviser should check out the ad method and tied-house restrictions in the market before you incur any expenses.

From the Grape to the Glass

LET OUR PRODUCTS WORK FOR YOU:

- Filter sheets for rough and polish filtration
- Cellulose fibers in various grades for use in pressure leaf filters
- Agents for clarifying, cold stabilizing without refrigeration, acid reduction, color removal, color stabilizers, correction of excess metals, correction of H_2S or mercaptan odors
- Granular white oak to complement and enhance fine wine flavors and aromas

Cellulo Company
A SUBSIDIARY OF FILTER MATERIALS INC
and its
Finer Filter Products Division
West Coast Office: 124 "M" Street • Fresno, CA 93721 • (209) 485-2692
East Coast Office: 27 North Ave. E. • Cranford, N.J. 07016 • (201) 272-9400

Cellulo®

Winery, Water & Waste

D.R. Storm, Ph.D., P.E.

Winery Odors: Achieving 24-Hour Protection, Part I

Preoccupation with Odors

I am convinced that during the 1980-90 decade Americans are becoming more controlled by the fragrance industry than at any previous time in our history. When I emerge from my morning toilette, I emit a blend of fragrances from my shower soap, shampoo, shaving lotion, cologne, after-shower talcum and underarm deodorant. Even my laundered clothes, in order to have a neutral static charge, must smell like the perfume counter at Macy's. Fortunately for my family and business associates, I forego the aftershave, cologne and post-shower talcum. We have become a population which demands that our nostrils are not assaulted by offensive scents.

Odor discrimination must have begun at an early age only to be re-learned at some stage of adulthood. It is against all reason and logic that we become enchanted with the overwhelming smells associated with ripe Camembert or Limberger cheese, both of which, in a 'blind smelling', could be mistaken for an old pair of running shoes or the downwind odors provided by Chicago's best (worst?) *abattoir.*

Previous *PW* 'Winery Water & Waste' columns have touched on the subject of winery-induced odors (*PW,* Nov./Dec., 1984; *PW,* Jan./Feb., 1985; *PW,* Mar./Apr., 1985). About 70% of my current and past consulting engagements for wineries have involved odor abatement in one way or another. The subject of odorants, odors and odor abatement is broad, and important enough to all wineries with neighbors who may become odor targets, to demand this detailed, two-part coverage of the subject. Odor fundamentals will be discussed in Part I, while Part II will explore odor abatement methods and the psychology of odor complaints.

The Human Nose

Because the appreciation of good wines and the detection of foul odors are at opposite ends of the pleasure spectrum, I believe it is important to understand the functioning of the nose. Amerine and Roessler describe the part of the nose that receives the pleasurable and unpleasurable odors as being 'small and located in a remote part of the nose' (Amerine *et al,* 1976). They further describe the amount of air that is taken in the nasal passage and that reaches this olfactory region as being very small. The mucous membranes that line the nose tend to absorb the odorant, good or bad, on its way to the sensing region.

Also pointed out in this fascinating reference is that the odor sensor 'fatigues' very quickly (*Ibid,* 1976), giving rise to a nasal self-protective feature that could be a real blessing when one is assaulted with a continuous blast of noxious odors. Anyone who has been unfortunate enough to have a common cold or an allergy when a rare wine is offered by a thoughtful dinner host knows that to try to experience bottle bouquet or even to tell if the liquid is made from grapes is impossible. The physiological reason for the nose shutdown is that with allergies and common colds the nasal passages become swollen, and the narrow olfactory passage to the odor-sensing region of the nose closes or becomes so restricted that the sense of smell is totally immobilized.

For other members of the animal kingdom that depend upon the sense of smell for finding food or a mate, or to detect an approaching predator, the olfactory portion of the nose is very highly developed. Maybe future organ transplant technology will allow us to have a bloodhound's high-tech smelling organ to replace our stock model. Just think of it—you could describe the wine someone was drinking on the other side of the restaurant just by pointing your ultra-sensitive nose in the right direction. You could even track missing persons on weekends—the mind boggles.

Lafitte

supplies corks and capsules from the following divisions

BOUCHAGE METALLIQUE
FRANCE
Tin-Lead Capsules

S. I. C.
SOCIEDADE INDUSTRIEL DE CORTICAS
PORTUGAL
Corks

COLIEGE METALCO
FRANCE
PVC Capsules

LAFITTE CORK & CAPSULE
1180 Hamilton Ct. • 415/322-1838
Menlo Park, CA 94025

Odor Measurement—Noseometers?

In the wine industry, the nose is as valuable to the winemaker as his entire inventory of laboratory equipment. It is used for detecting both desirable and undesirable aromas and bouquets. Qualitatively, the nose is a remarkable organ, but to assign other than descriptive terms and comparative adjectives, the assignation of units of odor measurement must remain subjective.

Measurement of odors has had its largest technological step forward in the wastewater and solid waste disposal fields of endeavor. Odor complaints are an unavoidable and fairly regular occurrence in areas downwind from petroleum refineries, sulfite process paper mills, waste treatment facilities, tallow works, and tanneries. The set of circumstances that usually prevails to create a large number of complaints are:

1) Downwind targets are awake (daylight hours both in and outside of work place or place of residence);

2) Relatively constant wind direction;

3) Possible strong atmospheric sublayer inversion (no vertical dilution of odors);

4) Topography prevents lateral dispersion of odorants;

5) Relative humidity (influences evolution of odors from water surfaces).

The 'olfactometer', an odor-measuring device which gained wide acceptance in the west during the period 1975-79, was developed by the Eutek Corp. of Sacramento, CA (Anon. 1978). The measurement technique is based on a minimum detectable threshold odor concentration (MDTOC) determination in which a human subject (you still need a nose) is provided a constant background of carbon-filtered air with periodic doses of increasing fractions of odorant-containing air.

The MDTOC is reached when a test subject identifies the presence of an odor at least 50% of the time in a 10-replicate test series. The measuring unit is carried on the pre-qualified test subject in a back pack. The same criteria that are generally used to qualify wine judges are used in 'certifying' an olfactometer operator (non-smokers, non-allergenic, etc.)

The units of odor measurement are odor units per standard cubic foot of air (ou/scf), which is the number of volumes of carbon-filtered air that must be added to a sample until the odor is just detectable (MDTOC). By correlating odor complaints, odor measurements and micrometeorological measurements, a mathematical model can be formulated to predict the conditions that produce the odor complaints and to generate a physical or chemical abatement program to prevent such conditions from occurring. (Alternative odor control solutions will be discussed in Part II of this series.)

Testing and modeling for the odor abatement planning project for which the olfactometer was developed produced some unusual public reactions during the prototype test phase. An artificial odorant, mercaptan, was used as a tracer in early stages of the investigation (commercial name Spotleak 1009). The tracer is also used as a U.S. standard as an odorant additive to natural gas. Several hundred gas leak complaints to the local utility ended the use of that odorant.

While you hope that good site planning for your winery and prudent design of wastewater treatment and disposal facilities will preclude future odor complaints from downwind neighbors, at least you are now aware that there is a method of quantifying odor emissions and a fundamental scientific approach to abatement in lieu of 500 gallons of Chanel No. 5.

Unforgettable Odors

I cannot leave this subject without describing to you two of my most memorable odor encounters.

There are, as you can imagine, vocations that require some tolerance for unpleasant odors. Before implementation of our current air pollution laws, the Humboldt Bay region of northern California and the Tacoma, Washington, metropolitan areas had a pervasive, sulfurous odor that was always associated with the production of brown paper (fiberboard). For outsiders entering the 'odor zone', it was always initially an olfactory shock, followed by a loss of appetite and even nausea. I can remember asking a local inhabitant (he may even have worked in the paper mill) how he tolerated the smell and he replied, "It smells like money."

Because the economy of both those areas was keyed to the forest products and paper industry, it was a nasal sacrifice that everyone was willing to make to keep the healthy industry in their backyard. I'm not sure, in this enlightened era of environmental awareness and healthy bodies, that I would still get the same answer.

A rookie sanitary engineer is often called upon to be the eyes and ears (and nose) for more senior office-bound design engineers. Determining the inlet pipe size and elevation of a large grease trap for an existing chicken processing plant almost proved to be my undoing. I removed a manhole cover, and before any of the plant staff could warn me, I descended the ladder into the grease trap, tape measure and flashlight in hand.

Once below the manhole ring, I could sense that all was not well, atmospherically speaking. Before I could get my head above the manhole I was forced to take a breath that literally left me speechless. I was on the verge of losing my breakfast, but somehow managed to keep things under control.

I have had occasion since that time to encounter many septic pump stations and hundreds of acres of very odorous sewage sludge ponds in San Jose, CA, but they could never equal that indelible odor print that I still carry on my brain.

(Part II will describe the "Rx for Winery Odors" and "Behavioral Fragrances.")

References

Amerine, Maynard A. and E.B. Roessler, 1976. *Wines and Their Sensory Evaluation*. UC Davis, 1976. Freeman Press.

Anon, 1978. *Sacramento Regional Wastewater Management Program, Odor Studies 1978*. Sacramento Regional County Sanitation District.

David Storm is a consulting sanitary engineer and owner of Winters Winery, Winters, CA.

COLUMBIA MACHINE, INC. - Palletizers & Depalletizers, (Case, Pail, Drums, Bales, Bags)

HORIX - Rotary & Inline Fillers, Cappers, Coolers & Warmers

KIWI MARKING EQUIPMENT CO. - Coders & Printers

KAPS-ALL - Cappers & Lidders

KAUFMAN STRETCH WRAPPERS - Stretch Wrap & Shrink Wrap Systems (Pallet)

NERCON ENGINEERING - Container Conveyors, Bi-Directional Accumulators, Rinsers & Semi-Automatic Depal.

C.T.X. - Tray Forming, Packing, Shrink Wrapping

LANGEN & SONS - Bottle Packers, Cartoners, Bag Makers

NEW WAY PACKAGING - Bottle Packers, Unpackers, Case Sealers, Unloaders Case & Tray & Wrap Around Packers

ASK ABOUT OUR USED PACKAGING MACHINERY, SPECIALIZING IN USED COLUMBIA PALLETIZERS IN THE PACIFIC NORTHWEST

MT. HOOD

HOOD MACHINERY, INC.

P O BOX 38 / 515 E. 39th STREET • VANCOUVER, WA 98663 • PHONE (206) 699-4505

Wine Unit Costs, Part III: Treatment of Processing Costs

George M. Schofield

Unlike grape and bottling costs, which are readily identifiable by wine type, winemaking and ageing costs can be difficult to associate with individual wines. Tracking the labor cost element of individual wine movements may not be too difficult, but tracing of overhead expenses such as supervision, maintenance, utilities and depreciation to individual wines is often a nebulous process.

Cost allocations are the accountant's answer to unassignability. Dividing costs on percentage ratios based on tons, gallons, labor, space, time or estimated valuation is a pure joy to many accountants and is often performed with relish out to three or more decimals.

Preoccupation with arithmetic methodology and the allure of apparent precision is a pitfall which ought to be avoided. The numbers are not an end in themselves. The logic and relevancy of the cost allocations are the critical factors. Too often unit costs are blindly accepted by management without any review of the underlying assumptions and the basic operating decision for which the unit costs will be used.

For premium wineries, whose wines may sell at prices ranging from $30.00 to $100.00/case, a total differential of $.25 or $.50/case may not be critical enough to alter a decision. Consequently, refinements in allocation methods which result only in relatively minor differences of a few pennies per gallon are not worth struggling over.

CORK and SEAL
of CALIFORNIA, INC.

SPECIALIZING IN

Polylaminated or
Aluminum Capsules
Wire Hoods
Corks
Tin Lead Capsules

OTHER PRODUCTS

Special Capsules for
Magnum and Oversized Bottles
Still Wine Corks
Still Wine Pre Heat Shrink Capsules
Still Wine Tin Lead Capsules

CSC

5415 NAPA VALLEJO HIGHWAY • VALLEJO, CA 94589
707 257-6481, 82 • TELEX 176 924 COSECA VLLJ.

Categorizing of Costs

Before an attempt can be made to calculate unit processing cost, an organized system of collecting and summarizing the relevant costs is needed. The key to structuring the system is to follow the winemaking operations and to put accumulation points or 'baskets' at each point where production functions occur.

Normally, the most practical approach is the segregation of costs related to production of current vintage wines versus the cost of ageing older wines. Production costs related to bottling, storing and shipping of case goods also ought to be separated.

Departmental Accounts

The 'baskets' to catch costs are commonly called cost centers or departments. For small wineries a simple basic set of production departments would be:

Department	Number	Reason for Category
Crushing & fermenting	#70	Cost of new wine
Cellars	#71	Cost of old wine
Barrel	#72	Cost of ageing/year
Bottling	#75	Cost of packaging

A second dimension to the departmental structure is a common set of expense categories where individual expenses are accumulated. In essence, each basket has a similar set of compartments or accounts. A basic set of such accounts is illustrated in Exhibit 1.

Exhibit 1
Department and Expense Account Summary

Expense Category # Description	Crushing and Fermenting #7000	Cellars #7100	Barrel Ageing #7200	Bottling #7500	Total
01 Salaries & Wages	$30.0	$60.0		$8.0	$98.0
05 Fringe Benefits and Payroll Taxes	$6.0	$12.0		$3.2	$21.2
10 Supplies & Chemicals	$4.0	$4.5		$2.0	$10.5
15 Repairs & Maintenance	$10.0	$10.0		$2.0	$22.0
20 Outside Services & Consultants	$3.0	$9.0			$12.0
25 Lease & Rentals	$1.0	$2.0		$1.0	$4.0
30 Other Operating Expenses	$6.0	$13.5		$3.2	$22.7
50 Utilities	$9.0	$18.0		$1.0	$28.0
51 Insurance	$3.0	$9.0			$12.0
52 Property Tax	$1.5	$4.5			$6.0
53 Depreciation	$39.0	$63.0	$48.0	$12.0	$162.0
TOTAL	$112.5	$205.5	$48.0	$32.4	$398.4

Expense Accounts

By combining the departments and expense categories, a matrix of accounts can be created using a four-digit coding system, with the first two digits representing the department and the last two digits an expense type. A key feature is that the same expense categories in all departments have the same last two digits. For example, if the expense code for wages and salaries was 01, then cellar wages should be 7101 while bottling wages would be 7501.

By using the matrix, budgets and actual costs can be summarized by department adding down and by natural expenses adding across. Such a format is very compatible with the system of accounts used for general accounting purposes, whether computerized or manual. It is also quite flexible in that additional departments and cost categories can be added as desired.

Time Segregation

A third dimension to a cost-accounting structure is that of time. A worksheet or computer spread sheet ought to be set up for each department with a set of columns for each month (Exhibit 2). This form provides a convenient framework for budgeting and also provides a systematic way of summarizing actual costs on a month- and year-to-date basis.

The ability to divide costs on a time basis is most useful in overcoming certain problems in distinguishing costs related to new wines versus old wines. Production, labor and activities, particularly those just before, during and immediately following the crush, are particularly difficult to separate.

Rather than an onerous, consuming tracking of time charges and costs, a simple and usually reasonably accurate approach is to assume that all cellar activity during the three month period of September, October and November are related to new wine production. All cellar activity, with a few specific exceptions such as maintenance, occurring prior to the crush, would be designated as related to old wines. All costs from the end of December to the close of the fiscal year would be considered to be related to both old and new wines on a gallon-for-gallon basis.

Purists may object to the simplified time allocation treatment. However, the alternative process of trying to split and identify activities around the hectic crush period is time-consuming and likely to be imprecise. Generally, the crush lasts 8–10 weeks at most wineries, during which essentially all efforts are devoted to new wine production. Considering the preparation and clean-up efforts, the charging of most winery costs to the crushing and fermenting department during the three months around the crush generally can be considered a reasonable estimate.

Absorption of Cost into Inventory

Having completed the framework of a departmental, expenses, and time structure, the basic task of unit cost determination for production labor and overhead can be performed. Accountants traditionally refer to this process as the 'absorption' of production costs.

A basic version of this calculation is illustrated in Exhibit 3. The comment section of Exhibit 3 demonstrates the straightforward allocations possible based on the departmental time segregations. All crushing and fermenting costs are assigned to new wines. All cellars and barrel ageing costs up through November 30 are assigned to old wines. The cellars and barrel ageing costs after December 1 are divided between new and old wines based on the ratio of total wine gallons in inventory on November 30. Other production costs, such as bottling, would be also segregated for separate treatment.

Equivalent Production Units

The final steps are to total the costs allocated to new and old wines and divide the totals by the production volume. New wine production gallonage is readily obtainable from the November 30 inventory. Lees and press wines, which are to be treated as by-product costs rather than joint costs, would be excluded (*PW*, July/Aug 1985, p.45).

Development of a production volume for old wines warrants special comment. The theoretical approach would be to calculate or estimate the gallons of each wine type in 'bulk wine' inventory each month and determine the total month-gallons for the year and divide this total into the toal costs assigned to old wines. The resultant cost per month per gallon would then be applied to each wine type each month.

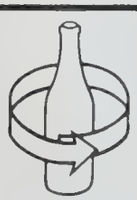
Half-Year Averaging

From a practical viewpoint, the cost per gallon per month technique is cumbersome. Alternatively, most wineries can use a half-year averaging convention similar to that frequently used for depreciation. Basically, all prior vintage wines on hand at the beginning of the year are assigned a half-year's processing and ageing costs and those wines still on hand at year-end are assigned another half-year's costs.

Essentially, the wines bottled or sold as bulk wines during the year receive an average six-month costs allocation regardless of the actual month bottled or disposed. Using this rationale, a simple equivalent production unit calculation is then possible by adding together the opening inventory and the year-end inventory. The resultant cost per gallon represents the aggregate

Exhibit 2
Cellar Department #7100 Actual Spending Year Ended 12/31/84

# Description	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec	Total
01 Salaries & Wages	$7.0	$7.0	$7.0	$7.0	$6.0	$6.0	$6.0	$6.0				$8.0	$60.0
05 Fringe Benefits & Payroll Taxes	$1.4	$1.4	$1.4	$1.4	$1.2	$1.2	$1.2	$1.2				$1.6	$12.0
10 Supplies & Chemicals	$0.5	$0.5	$0.5	$0.5	$0.5	$0.5	$0.5	$0.5				$0.5	$4.5
15 Repairs & Maintenance	$2.0	$2.0	$2.0	$2.0	$1.0							$1.0	$10.0
20 Outside Services & Consultants	$1.0	$1.0	$1.0	$1.0	$1.0	$1.0	$1.0	$1.0				$1.0	$9.0
25 Lease & Rentals	$0.5	$0.5	$0.5									$0.5	$2.0
30 Other Operating Expenses	$1.5	$1.5	$1.5	$1.5	$1.5	$1.5	$1.5	$1.5				$1.5	$13.5
50 Utilities	$2.5	$2.0	$2.0	$2.0	$2.0	$2.0	$1.5	$1.5				$2.5	$18.0
51 Insurance	$1.0	$1.0	$1.0	$1.0	$1.0	$1.0	$1.0	$1.0				$1.0	$9.0
52 Property Tax	$0.5	$0.5	$0.5	$0.5	$0.5	$0.5	$0.5	$0.5				$0.5	$4.5
53 Depreciation	$7.0	$7.0	$7.0	$7.0	$7.0	$7.0	$7.0	$7.0				$7.0	$63.0
TOTAL	$24.9	$24.4	$24.4	$23.9	$21.7	$20.7	$20.2	$20.2	$0.0	$0.0	$0.0	$25.1	$205.5


WINE BOTTLES BOUGHT & SOLD
GLASS STERILIZATION
NEW CARTONS & DIVIDERS
ENCORE! (415) 234-5670
860 So. 19th Street, Richmond, CA 94804

STRASSBURGER asbestos-free filter pads from Germany, all grades in stock (coarse-steri¹e) very competitively priced. We also stock G&H pumps, ball & butterfly valves and fittings, etc.
Ask about our Used Equipment.
RLS Equipment Co., Inc. 1017 White Horse Pike, Egg Harbor, NJ 08215 (609) 965-0074

six months' cost factor to be added to the opening and closing unit cost valuation for bulk wines.

Yield Loss

Another consideration for unit cost determination is yield loss. Most wineries experience average evaporation and process losses in the range of 0.4% per month or about 5% per year. Bottling losses often account for an additional 2–3%. Hence, assuming a half-year averaging technique, all wines during the year will average 5% loss (6 months at 2.5% plus 2.5% in bottling).

Wines held in bulk wine inventory for a full year will also experience an average 5% yield loss. Accordingly, a 5% beginning of the year increase to bulk wine inventory unit costs will provide a reserve for actual yield losses which will occur during the year. Again, a half-year averaging technique is used for wines bottled or disposed of during the year.

Pre-Year-End Estimating

Normally, the unit cost determination is performed as part of the year-end accounting chores. This timing can be accelerated at least one month by using 11 months actual plus one month forecasted expenses. Only a very large unanticipated variation in the last month would cause a deviation significant enough to require detailed recalculation. Minor variations are simply disposed of as an 'other expense' or combined with some other production variances.

Based on past experience, and with the help of budgetary data, many wineries can often estimate the unit cost absorption at the start of each year. Bulk wine valuations can be increased as of the first day of each fiscal year to allow for both the six-month ageing adjustment and expected yield losses. Since no actual costs have been incurred, reserves for future production spending and expected yield losses are established to balance the accounting records.

Exhibit 3
Production Cost Absorption Into Inventory

($000)	Total Year Spending	Prior New Wines	Prior Vintage Wines	Bottling	Comments
Crushing & Fermenting	$112.5	$112.5			100% To New Wines
Cellars:					100% To Old Wines, Split
Jan 1–Nov 30	$180.4		$180.4		On % Dec. 31 Inventory (32% To Old Wines)- Exhibit 4
Dec 1–Dec 31	$25.1	$17.1	$8.0		
Subtotal	$205.5	$17.1	$188.4		
Barrel Ageing					100% To Old Wines
Jan 1–Nov 30	$44.0		$44.0		Split on % Dec. 31 Inventory (32% To Old Wines) Exhibit 4
Dec 1–Dec 31	$4.0	$2.7	$1.3		
Subtotal	$48.0	$2.7	$45.3		
Bottling	$32.4			$32.4	
TOTAL	$398.4	$132.3	$233.7	$32.4	
Equivalent Production Volume					
New Wine (000 Gals)	64.0				
Old Wine (000 Gals)					
Jan 1 Inventory			91.6		
Dec 31 Inventory			30.0		
TOTAL			121.6		
Bottled Wine				24.0	
Unit Cost Per Equivalent Production Unit		$2.067	$1.922	$1.350	

The reserves, created in combination with additional absorption of costs from new wine production and bulk wines on hand at year-end, should approximate actual spending for the year. Estimated 'under' or 'over' absorption would be monitored quarterly. In the absence of large differences, little work is required until year-end.

Refinements

Refinements and sophistication can be added to the outlined system as desired. The basic matrix can be expanded in both directions, adding departments such as Quality Control as well as additional Expenses accounts such as travel. Many wineries use production 'service' departments such as main-

Exhibit 4
1984 Wine Inventory Summary

(000 Gals)	1/1/84 Inventory Balance	1984 Bottling/ Bulk Sale	1984 Yield Loss	1984 New Wine Production	12/31/84 Inventory Balance	% of Total
1982 Cabernet Sauvignon	30.0	−28.5	−1.5		0.0	0.0%
1983 Cabernet Sauvignon	31.6		−1.6		30.0	31.9%
1984 Cabernet Sauvignon				27.5	27.5	29.3%
1983 Chardonnay	30.0	−28.5	−1.5		0.0	0.0%
1984 Chardonnay				36.5	36.5	38.8%
TOTAL	91.6	−57.0	−4.6	64.0	94.0	100.0%

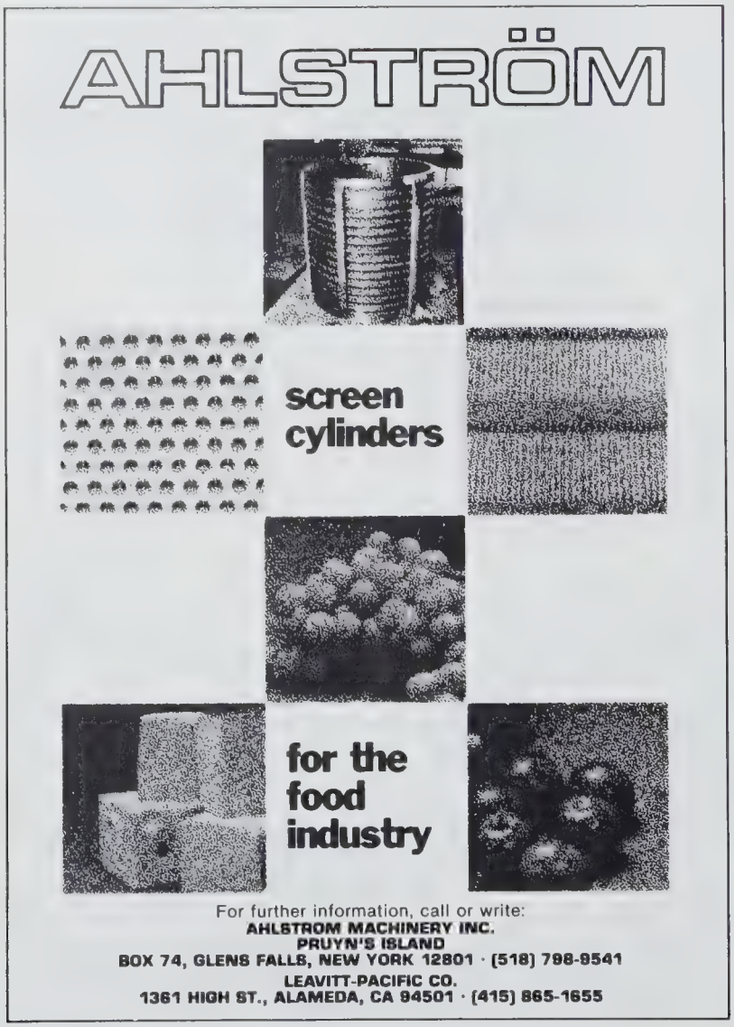

AHLSTRÖM
screen cylinders
for the food industry
For further information, call or write:
AHLSTROM MACHINERY INC.
PRUYN'S ISLAND
BOX 74, GLENS FALLS, NEW YORK 12801 · (518) 798-9541
LEAVITT-PACIFIC CO.
1361 HIGH ST., ALAMEDA, CA 94501 · (415) 865-1655

Exhibit 5
1984 Wine Unit Cost Summary

($/Gal.)	12/31/84	1/1/84 Ageing Adjustment	Subtotal	1984 5% Est. Yield Adjustment	Subtotal Valuation During 1984	12/31/84 Adjustment Grapes	12/31/84 Adjustment Processing	Valuation 12/31/84
1982 Cabernet Sauvignon	$12.000	$1.922	$13.922	$0.696	$14.618		Bottled	
1983 Cabernet Sauvignon	$10.000	$1.922	$11.922	$0.596	$12.518		$1.922	$14.440
1984 Cabernet Sauvignon						$6.050	$2.067	$8.117
1983 Chardonnay	$14.000	$1.922	$15.922	$0.796	$16.718		Bottled	
1984 Chardonnay						$6.250	$2.067	$8.317

tenance which are not final cost centers as they have no production volume to 'absorb' costs. Such service departments are transferred or charged out to other departments.

Another major refinement is usually necessary when the same winery facility produces both premium and generic wines. Rather than have the generic wine absorb an equal amount of the costs, an allocation based on the net realizable values of the wines can be used (*PW*, July/Aug 1985, p.46-48). Mechanically this is handled by adding two columns to Exhibit 3, one for new generic wines and the other for generic prior-vintage wines. Logically, the higher allocation to premium wines is justified on the basis of the higher priority generally granted for equipment utilization and labor.

In a similar fashion, premium wines which may not be barrel-aged, such as Johannisberg Riesling, can be separated from those premium wines which are. Again, the creation of two additional columns in Exhibit 3 can accommodate this modification. Crushing and cellar costs would be shared equally on a simple gallonage basis. However, the non-oak-aged wines would share none of the barrel-ageing costs.

Bulk Wine Unit Cost Summary

Exhibit 5 illustrates how the various bits of unit cost data are integrated. To the opening inventory valuation is added the six-month processing and 1984 estimated year loss to arrive at a value to be used for bottling. Opening bulk wines still on hand at year-end are assigned the second six months' processing cost to arrive at a year-end inventory valuation. To the grape costs of new wine (*PW* July/Aug 1985, p.48, Exhibit 6) are added the crushing and fermenting costs.

Finally, Exhibit 6 depicts how the cost of a finished case of wine is assembled. This becomes the basis of the standard costs which are used throughout the year to determine the monthly cost of wine sold and to value cased goods inventory.

Exhibit 6
1982 Cabernet Sauvignon Case Goods Cost

	Unit Cost $/Gal.	Unit Cost $/Case	Comments
1982 Cabernet Sauvignon Bulk Wine	$14.618	$34.754	Exhibit 5
Packaging Components		$6.654	*PW* May/June 1985, p. 17 Exhibit 2
Bottling Labor & Overhead		$1.350	Exhibit 3
TOTAL		$42.758	

Conclusion

The outlined system can best be described as a specific cost system in that it identifies costs on a specific vintage and variety basis. The virtue of such a system is primarily the insight such data gives for grape purchasing and wine pricing decisions.

With the advent of personal computers and spread sheet programs such as LOTUS 1,2,3, the analysis presented can be incorporated in a computer model. Updates and revisions within the year can thereby be easily performed. In addition, the format can be saved and used from year to year as well as utilized in budgetary and planning exercises.

On a practical basis, once installed, the proposed system is efficient and flexible. The process is elongated and, therefore, seems complicated. However, each step is relatively simple and logical. After the first time through, most wineries have little difficulty working with such a system.

The prime issue tends to be degree of refinement. Common sense should be the deciding factor. On one hand, meaningful distinctions ought to be included. On the other hand, the endless search for absolute accuracy ought to be avoided. The flexible design capabilities of the system allows 'tailor-made' features for individual wineries.

Overall, however, the cardinal rule is to justify carefully any sophistication. Complicated methodology is most often confusing and counter-productive. Those who stick to basics usually create a system that management and the accountant can understand. From the practical view point, this may be the critical factor in reaping benefits.

GRAPE INTELLIGENCE
Summary of California Grape Statistics and Projections 1976-1990

20 Varieties - 9 Regions

Subtotals and Combinations

Including Acreage, Production, Prices, Yield Per Acre, Variations from Normal, Written and Graphic Analyses

WINE INTELLIGENCE
Quarterly California Wine Industry Shipment Report

Industry Summary
25 Individual Companies

5-Company Subgroup by Region and Size

Comparative Data: 1980 - Current

Send for Free Excerpt and Subscription Information

GEORGE M. SCHOFIELD COMPANY • P. O. BOX 539, ST. HELENA, CA 94574

TAX SIMPLIFICATION?

Don't bank on it.

In Washington, the proposed 1,500 revisions in tax laws are called "simplification." But you can be sure the implications for your business and personal finances will be far from simple.

This year, more than ever, your year-end tax plan must be strategic. You need specialists who can advise you on opportunities that may disappear after December 31.

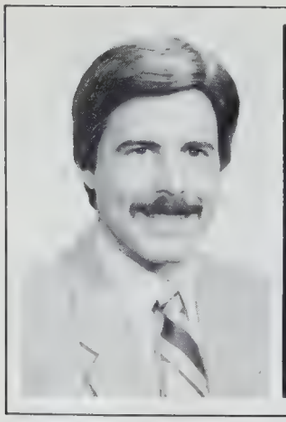
KMG Main Hurdman has served California wineries for almost half a century. By combining this in-depth knowledge of the wine industry with up-to-date information on tax issues, we offer sound financial advice designed to improve your bottom line.

There are less than 70 days left to make your 1985 tax planning decisions. Our tax advisors are available in offices in San Francisco, San Jose, Sacramento, Oakland, Fresno and 82 other cities in the U.S.

Call us today. (415) 627-8368

KMG Main Hurdman
Certified Public Accountants

Two Embarcadero Center, Suite 2400, San Francisco, CA 94111



Winery Year-End Tax Strategies

John R. Reimann &
Susan Evans
KMG Main Hurdman
Oakland, CA

As 1985 draws to a close, the thoughts of taxpayers and tax practitioners alike are turning to the preparation of 1985 returns and year-end tax planning. Always an uncertain process, tax planning is made even more difficult and ambiguous this year due to the prospect of tax reform looming on the horizon.

President Reagan's tax proposal, known as Treasury II, encompasses major changes in both personal and business tax laws. These changes would have a substantial impact on personal taxation and affect virtually every area of American business, including the wine industry.

Taxpayers are frequently able to reduce their tax liabilities by deferring and accelerating income and expenses. Shifting some income and deductions between years is relatively easy for cash basis taxpayers who report income when money is received and deductions when money is paid. Although accrual basis taxpayers must report income when it is earned and deductions when incurred, they still have some flexibility in accelerating and postponing the recognition of revenues and expenditures.

This presentation highlights some of the federal income tax planning opportunities available to both cash and accrual basis owners and employees of vineyards and wineries. Also discussed are some of the aspects of Treasury II, as proposed by President Reagan in May 1985, that are most likely to affect taxpayers in the wine industry. State tax laws vary; therefore, you should consult your tax advisor regarding state tax planning.

One important thing to remember is that tax planning should take into consideration the taxpayer's situation for the next several years as well as the current year's tax liability. This approach allows you to weigh the current and future benefits (and disadvantages) of particular strategies and make decisions that will maximize your tax savings over a number of years.

Your tax advisor can assist you in expanding on the following ideas to develop a plan to help you make the most of both short-term and long-term tax planning opportunities.

Personal Tax Planning

There are many ways of minimizing your federal individual income taxes. Here are six planning ideas that you may be able to put into effect before the end of the year. Keep in mind that Treasury II may impact some or all of these strategies.

Alternative Minimum Tax Taxpayers in higher income brackets who have substantial amounts of investment credits or tax preference deductions, such as capital gains or excess depreciation on real property and leased personal property, may find themselves subject to the alternative minimum tax (AMT). In order to reduce or eliminate your AMT liability, try to avoid bunching capital gains and other tax preferences and large amounts of credits into the same year. If you find yourself in a potential AMT situation, you may want to consider accelerating ordinary income into 1985 to reduce or eliminate the AMT. State and local taxes are not AMT deductions; prepaying these could cause or increase an AMT liability.

Prepay State and Local Taxes This method of reducing your 1985 tax liability is especially important this year in light of Treasury II's proposal to eliminate state and local taxes as an itemized deduction.

Increased Withholding If you find that you will not have paid 80% of your federal tax liability by the end of the year and if you do not meet any of the exceptions for underpayment of estimated tax, you may be subject to a penalty on your 1985 return. If you are receiving a salary, you may have your employer withhold additional taxes before the end of the year to ensure that you will not incur a penalty for underpayment of estimated taxes. Include self-employment tax and AMT, if applicable, in your 1985 estimated tax liability.

Individual Retirement Account Contributions Taxpayers have until April 15, 1986, to make 1985 IRA contributions. However, if you have cash available to make your contribution before then, your funds can start earning tax-deferred income at an earlier date. Not all states allow the same deductions for IRAs as the federal government.

Residential Energy Credit If your residence was substantially completed prior to April 20, 1977, you may claim a credit of up to $300 per residence for energy-saving devices, and a credit of up to $4,000 for installation of residential solar, wind, or geothermal energy equipment. This credit expires on December 31, 1985. Therefore, in order to take advantage of the benefits, you must make the expenditure by the end of this year.

Installment Sales Installment sale treatment, which enables a taxpayer to defer recognition of gain on a sale of capital gain property, applies to any sale transaction in which the seller receives at least one payment after the tax year in which the sale takes place.

For example, a vineyard owner sells a piece of bare land with a cost of $100,000 for $200,000 on a ten-year contract, realizing a gain of $100,000 on the sale. If he receives $20,000 on the contract in 1985, he recognizes only $10,000 of gain in 1985, deferring recognition of the balance of $90,000 to the remaining years of the contract. However, if a piece of business property is sold at a loss, depreciation recapture income must be fully recognized in the year of sale, even if no principal payments are received.

Business Tax Planning

Year-end tax planning can benefit businesses as well as individuals. If your business operates on a fiscal year as opposed to a calendar year, bear in mind that some of the following regulations and planning opportunities require action by December 31, regardless of your year end.

Automobiles The new laws pertaining to business use of automobiles are possibly the most publicized and controversial of recent legislation. One particularly volatile area has been the record-keeping requirements for business use.

Although Congress has repealed the requirement for contemporaneous record-keeping for business use of automobiles, taxpayers must still keep records in accordance with general business substantiation requirements. In other words, your records still must document the date of the trip, the number of miles driven, your destination, and the business purpose of the travel.

These substantiation requirements are not applicable to vehicles which are unlikely to be used for personal purposes, such as forklifts, tractors, and flatbed trucks. If your company's policy prohibits substantial use of these vehicles and you reasonably believe there is no substantial personal use, you are not required to include the employee use of these vehicles in their income. In addition, if you require an employee to drive the vehicle home for valid business reasons, commuting may also be excluded from income.

The value of personal use of all other company vehicles must be included in an employee's salary for 1985. The annual rental value of the vehicle must first be determined using tables issued by the IRS. The value assigned to the employee's personal use must then be calculated by multiplying the annual rental value by the ratio of personal miles driven to total miles driven during the year. This amount is subject to Social Security taxes. It is also subject to Federal income tax withholding unless the employer elected not to withhold and notified the employee of this election in writing on or before September 1, 1985.

Employers are permitted to include the personal use of company vehicles in employees' wages on a quarterly, semi-annual, or annual basis. Thus, if you have employees whose salaries have already exceeded the Social Security maximum of $39,600 in 1985 and you have elected not to subject their wages to federal withholding, you may avoid withholding from personal use of vehicles altogether by including this amount in their wages at the end of the year.

Qualified Retirement Plans Establishing a retirement plan provides an excellent opportunity for your business to combine a tax-saving strategy with employee benefits. Tax-qualified plans available to businesses include corporate pension, profit sharing, stock bonus, and employee stock ownership (ESOP) plans; Keogh (H.R. 10) plans for unincorporated businesses; and simplified employee pension (SEP) plans.

Each type of plan permits your business to defer its contribution until the next year and still receive a tax deduction for the current year. However, the plan must be established by the end of your tax year. For calendar year taxpayers, this means the plan must be in effect by December 31, while payments to the plan can be delayed until September 1986.

MEL KNOX

Barrel Broker

Francois Frères of Burgundy
Tonnellerie Taransaud of Cognac

- New barrels of all sizes
- Tanks
- Used cooperage

1229 Third Avenue
San Francisco
California 94122

415-661-3413
415-661-1616

Interest on Below-Market Rate Loans The 1984 Tax Reform Act stipulates that loans made exceeding $10,000 between a company and its employees or shareholders which bear interest at a rate below market value are treated as if the interest were at market rate. The lender is treated as if it receives additional interest income and rebates it to the borrower. The borrower is deemed to have received income and a corresponding interest deduction.

Market rate or applicable federal rate (AFR) between June 7, 1984, and December 31, 1984, was 10% and has fluctuated during 1985 according to tables issued monthly by the IRS. The market rate for July 1–December 31, 1985, is 10.92% for short-term loans.

The tax laws governing below-market interest rate loans require income recognition as of December 31, 1985, for corporations, employees, and shareholders. If an employee is the borrower, he will recognize additional interest income which must be reported on his 1985 W-2, and the income is subject to Social Security and federal unemployment taxes.

The employee is also entitled to an interest deduction if he itemizes deductions and is not subject to the investment interest limitation. The corporation receives imputed interest income and an imputed compensation deduction.

If a shareholder is a borrower, he will be treated as having received dividend income to the extent of the difference between actual and market interest. He will also receive a corresponding itemized interest deduction. The corporation will be treated as having paid a nondeductible dividend and having received interest income. The corporation must recognize this income without obtaining a corresponding deduction.

If the imputed dividend is $10 or more, the corporation must issue a Form 1099-DIV to the shareholder and should obtain a Form W-9 from the shareholder to avoid liability for backup withholding. However, in certain situations, if a shareholder/employee actually pays the additional interest to the corporation before the end of the year, the corporation can obtain a deduction by returning the money to the shareholder as salary. Or, if the terms of the loan permit, it may be desirable to re-structure the loan as an employee loan rather than a shareholder loan.

As of mid-September, Congress was considering proposals to change and simplify the tax treatment of imputed interest. If you are the bearer or receiver of a below-market rate loan, keep abreast of new developments in this area to make sure you are in compliance with the law, particularly in the area of deferred payment sales.

Credit for Research and Experimental Expenses This credit is available to businesses that incur expenses before January 1, 1986, which are connected with the development or improvement of a model, process, product, formula, invention or similar property. The credit is 25% of the amount by which qualified expenditures for the year exceed the average yearly amount of such expenditures over a base period.

The following are some examples of expenditures that could qualify as research and experimental costs:

1) Costs incurred to develop better bottling machines, grape harvesters, grape crushers, irrigation systems, etc.
2) Costs related to obtaining patents.
3) Costs related to developing a new wine or low-alcohol version of existing wine.
4) Costs related to developing disease-resistant rootstock.

Year-End Bonus If a winery or vineyard wishes to increase its 1985 expenses, one method of accomplishing this objective is through the use of year-end bonuses.

Keep in mind, however, that for accrual basis *calendar* year taxpayers, if the employee, directly or indirectly, owns more than 50% of the corporation's stock (2% for S corporations), the bonus must be paid by year end to qualify as a 1985 deduction.

If the bonus is not paid until 1986, it will be a 1986 deduction. Bonuses must be paid to all other employees by March 15, 1986, to qualify as a deduction for 1985.

Investment Credit and Depreciation If you are considering the acquisition of tangible personal property, placing the assets in service before the end of the year will enable you to reduce your taxes through increased accelerated cost recovery system (ACRS) depreciation deductions and investment tax credits. This tax planning technique has increased significance in 1985 due to Treasury II's proposed reduction and/or elimination of depreciation deductions and investment credit, discussed below.

You are entitled to a full year's depreciation and investment credit for the year in which equipment, furniture, fixtures, and vehicles are placed in service, regardless of when they were acquired during the year. A piece of equipment installed on December 31 thus qualifies for the same deductions and credits as one placed in service on January 1 of the same year.

In connection with the repeal of the contemporaneous record-keeping requirements, Congress lowered the investment credit and depreciation deductions available for automobiles. For 1985, the maximum investment credit available for automobiles is $675 (down from $1,000). The depreciation deduction under ACRS has been reduced to $3,200 for the first year an automobile is placed in service and $4,800 for each year thereafter (reduced from $4,000 for the first year and $6,000 for each succeeding year).

You may also elect to expense, rather than capitalize, up to $5,000 of tangible personal property placed in service in 1985. The $125,000 limitation on the amount of used property eligible for investment credit still applies in 1985.

For a practical yet unique gift idea.

The gift you'll depend on for a

L

O

N

G

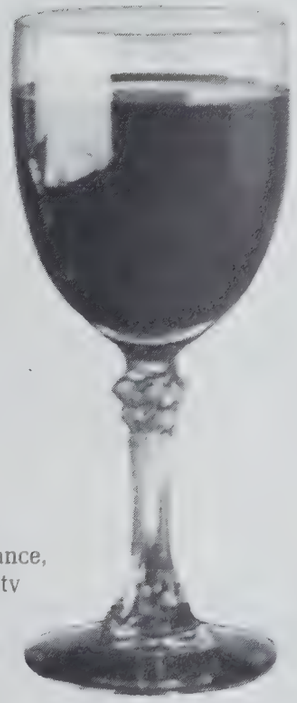
time!

PRACTICAL

WINERY

See page 55.

SWK Filter Sheets take the Bugs out of Filtration



SWK-SUPRA EK
and
SWK-SUPRA EK 1
for reliable sterilizing
Filtration without
Membrane post-filtration

SWK-SUPRA =
Super Performance,
Super Reliability

SWK-SUPRA 80
and
SWK-SUPRA 50
for best possible
Membrane Protection

SEN MACHINES INC. - U.S. REPRESENTATIVE FOR:

- SEITZ ENZINGER NOLL - Bottling and filtration equipment
- SEITZ FILTER WERKE - SWK Filter Sheets and Membranes
- MORLO - PVC heat-shrink capsules
- ERBSLOEH, Geisenheim - Wine and Juice fining materials
- WILLMES - Tank and Universal presses

sen

SEN MACHINES INC.

3095 KERNER BLVD., SUITE G SAN RAFAEL, CA 94901-5480
TELEPHONE: 415-457-5155 TELEX: 288978

SUBSIDIARY OF SEITZ ENZINGER NOLL MASCHINENBAU AG AND SEITZ-FILTER-WERKE THEO & GEO SEITZ • BAD KREUZNACH, W.GERMANY

Exclusive East Coast Representative:
JUERGEN LOENHOLDT - R.D. 1, Route 14, Himrod, NY 14842 (607) 243-7568

Hedging Your Bets with Treasury II

When President Reagan submitted his most recent tax plan in May, 1985, he described the plan as a "proposal to overhaul our tax code based on the principles of simplicity and fairness, opening the way to a generation of growth." Although it is difficult to challenge the merit of the President's general goals, a perusal of his plan would indicate that it is anything but simple. As for 'fairness?' Well, what is fair to one taxpayer usually is unfair to another. Fairness for our tax system is in the eye of the beholder!

No matter what your point of view, as a taxpayer it is worth acquainting yourself with the tax plan. An understanding of the proposals will enable you to consider the impact on your transactions, make your reactions known to your government representative, and plan for the effects the laws would have on you if they are enacted.

The President's personal income tax proposals have been widely publicized. They would eliminate the deduction for state taxes, reduce the maximum individual tax rates from 50% to 35%, replace the current 14 tax brackets with three rates, require limited income recognition of employer-provided health insurance, increase the zero bracket amount, increase personal exemptions to $2,000, eliminate the two-earner deduction, and limit interest deductions.

The proposal would not limit the deduction for mortgage interest on the taxpayer's principal residence. However, other types of interest expenses, such as credit card and auto loan interest, would be deductible only up to $5,000 plus investment income.

Interest subject to limitation would include all interest not incurred in connection with a trade or business, the taxpayer's share of all interest expense of an S corporation when the taxpayer is not part of management, and the taxpayer's distributive share of all interest expense of limited partnerships.

You can take advantage of a planning opportunity here if you are in the process of acquiring a home and have flexibility in the amount of your down payment. By keeping the debt as large as possible, you can keep cash available for investment or a second home, and the interest on the debt to carry the principal residence will be fully deductible.

In the business area, the President's proposals would make changes in the depreciation system, eliminate investment tax credits, eliminate capital gain treatment for depreciable property, eliminate numerous special vineyard elective deductions (listed below), limit use of the cash method of accounting, reduce the maximum corporate tax rate from 46% to 33%, provide for an election to index inventories for inflation, limit the deductions for entertainment and business meal expenses, and tighten the rules for inventory costing.

The proposed effective date for the majority of the changes is January 1, 1986. Accordingly, a vineyard or winery owner or operator may want to consider acquiring equipment and other personal tangible property before the beginning of the year to ensure receiving the benefit of investment tax credits (10% of cost of most equipment).

If the property is bought and placed in service by December 31, 1985, the credit is unquestionably available. If the equipment is contracted for but is not delivered until 1986, the credit may still be available. Although this situation was not addressed in the President's proposal, Congress will most likely establish some transitional rules to cover binding contracts in existence on the effective date of the new laws.

Currently, vineyard owners can elect to deduct certain expenditures that would ordinarily have to be capitalized. These expenses, with certain limitations, include soil and water conservation expenditures, fertilizer, land clearing costs and, for certain taxpayers, the costs of bringing vines to production.

According to the President's report, these special elections are of "full value only to those with significant income" and result in a competitive disadvantage to small, new, and unprofitable farmers. Thus, the President's proposal would eliminate the ability to take the benefit of these deductions currently.

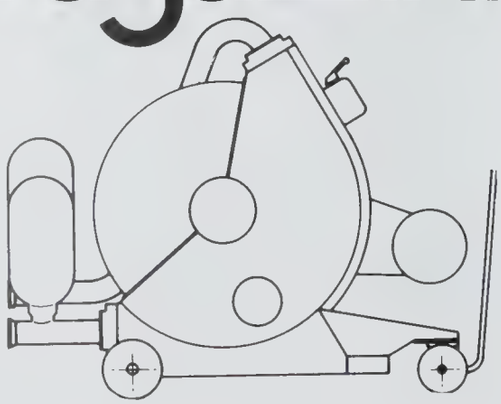
A planning idea for this year: If you have discretionary expenses that fit into the above categories and can be incurred this year as opposed to next year, you may be wise to go ahead and incur them now.

This brief description of the tax planning opportunities available for 1985 and the potential effects of Treasury II should give you an idea of the kinds of strategies you and your tax advisor can develop to minimize your taxes for 1985 and begin to plan for 1986. No one has a crystal ball to enable us to predict the future of tax legislation, but careful, well-thought-out tax planning can still provide an effective means of keeping your current and future tax liabilities at a minimum.

John R. Reimann is a tax partner with KMG Main Hurdman with more than 13 years experience in tax consulting. He specializes in inventory and depreciation taxation and works extensively with wineries and vineyards.

Susan M. Evans is a tax supervisor with KMG Main Hurdman.

ragazzini



PERISTALTIC (TUBING) PUMP
new technology in pumping

for must or transfer

Machinery • Equipment • Supplies
for the Wine Industry

THE COMPLEAT WINEMAKER
1219 MAIN STREET
ST. HELENA, CALIFORNIA 94574
707-963-9681
TWX 510-746-6176

PRESSURE/VACUUM BREAKERS
Approximately 50 used two-inch Varec and Shand & Jurs
$35.00 each
Call Jim Crandell
Robert Mondavi Winery–Woodbridge
(209) 369-5861

Join The

FARM BUREAU STATE FUND

GROUP WORKERS COMPENSATION INSURANCE PROGRAMS

Group Workers Compensation Programs for Growers and Vintners

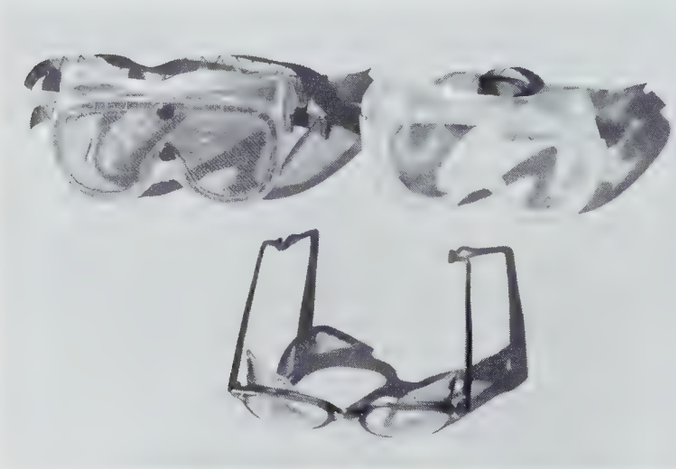
Contact your local Farm Bureau or State Fund office, or write Group Workers Compensation Programs, 1601 Exposition Blvd., Sacramento, California 95815.

Pruning Safety

John Robeson
State Compensation Insurance Fund

Pruning is one of the important steps in the yearly cycle of a vineyard, commencing when the vines drop their leaves. The role of the pruner is to maintain the vines to ensure a harvest of quality grapes.

Because accidents can occur very easily while pruning, it is important for pruners to maintain an awareness of their own safety. The following precautions can help:



Wear eye protection Emphasize use of eye protection to minimize potential of eye injuries. Although occasionally an eye injury will involve both eyes and result in blindness, most eye injuries involve just one eye and are only painful and inconvenient. These injuries often occur after the vine has been cut and the severed vine is being pulled off. The vine can whip in any direction, including into your eye.

By wearing safety glasses, you protect yourself against eye injuries. Although safety glasses may be uncomfortable or even fog up, the consequences of not wearing them can be quite serious. Even a minor eye injury can become infected and possibly result in a loss of vision.

Remember that street-wear glasses are not an adequate substitute for safety glasses. Safety glasses have shatter-proof lenses and side shields that protect against the unpredictability of whipping vines.

Consider how you handle your loppers. Some workers drape them over their shoulders. It is possible to trip and severely cut oneself by falling onto loppers.

Never prune a vine being pruned by another worker.

When cutting, you must position your hands correctly. Keep your left hand away from the vine being cut. If you place your hand too close, you could cut it before you even realize what you have done. Wearing gloves reduces the severity of such a potential injury. Gloves offer a better grip on the clippers and help keep your hands warm on a cold morning. In addition, gloves reduce fatigue and improve efficiency, since canes can be grasped more quickly and firmly.

When using a pruning saw, be sure to tighten the nut that secures the blade. If you fail to do this, the saw may close while you are using it. Use a saw properly. Remember, the cutting stroke is when you pull toward yourself.

Wear proper footwear to keep your feet dry and to ensure good footing. With the typically fast pace of vineyard pruning, good footing is important as the worker contends with wet, slippery ground and objects such as vines and trellis wires.

A fast but safe pace decreases the chance for injury. A slip could result in an injured leg or arm, or a wrenched back.

Store clippers properly Clippers should be kept sharpened to a fine edge to efficiently cut vines. If you are not careful, you could easily cut yourself.

Do not put clippers in your pockets. Reaching for them in a hurry could result in a serious cut to the hand. Also, do not put them in your front pocket. You could bend your leg and stab yourself in the thigh or abdomen.

Leave clipped vines on the trellis to be cleared by a follow-up crew. This reduces the possibility that the opposite hand will be pulling a vine just as it is being severed.

Some ranches are now using hydraulic pruning machines to make the pruning job easier, especially on the wrists. Special safety rules apply if your ranch is one of these.

The opposite hand must be kept away from the pinchpoint by either holding the clippers with both hands or holding the hose.

Following these safety tips will greatly decrease your chances of incurring any pruning injuries.

Nature doesn't produce even growth. Designed drip irrigation does.

Sure, nature gives you water. But not when you need it.

That's work for Water Dynamics.

Water Dynamics designs agricultural drip irrigation systems, starting at the source and taking it to the plant.

The effect of topography, the growth pattern of the crop, the soil itself are important, because the final design must deliver the right amount of water at the right time.

That's how Water Dynamics produces even growth. By design. And that's why Water Dynamics will be there to service your system — crop after crop after crop.

water dynamics incorporated

659 Main Street, St. Helena, CA 94574 • 707 963-5822

the recognized professionals in north coast viticultural irrigation

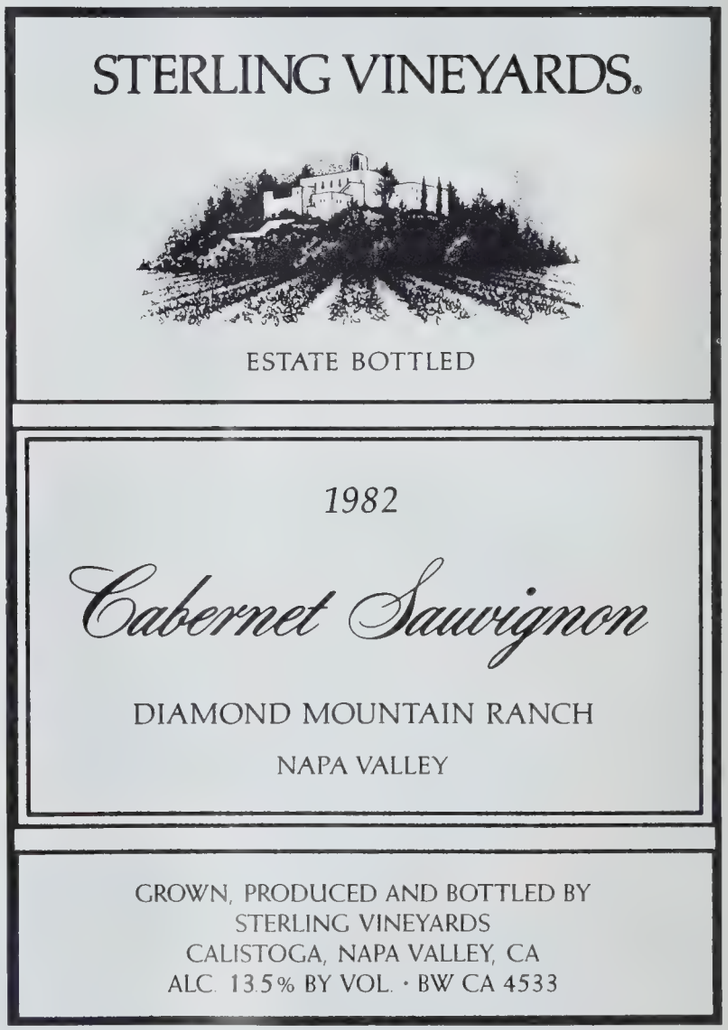
VINEYARD PROFILE: Diamond Mountain Ranch

Don Neel

Sterling Vineyards in Calistoga, CA, has always released Napa Valley bottlings since its beginning in 1969. The winery has utilized blending from different vineyards to make the most interesting varietal wines possible. Just recently, Sterling released its first vineyard designated wine: just over 3,000 cases of 1982 Diamond Mountain Ranch Cabernet Sauvignon, soon to be followed by release of nearly 4,000 cases of 1983 Diamond Mountain Ranch Chardonnay.

Bill Dyer, winemaker, describes the 1982 DMR Cabernet as distinctive from Sterling's Napa Valley and Reserve Cabernets. "It is a bigger wine with more tannin. The wine has similarities to Cabernets that have been produced by Diamond Creek Vineyard and Roddis Cellar, who both have Cabernet plantings on lower elevations of Diamond Mountain. The Chardonnay has a little higher acid than our other vineyards. DMR Chardonnay in experimental lots since 1979 has shown great ageability potential. It is a bit austere early, but a nice fruit intensity does develop with bottle ageing."

Tucker Catlin, Sterling's vineyard manager at Diamond Mountain Ranch. (photo by Faith Echtermeyer)



The 1982 DMR Cabernet Sauvignon is a blend of 77% Cabernet Sauvignon, 17% Merlot and 6% Cabernet franc picked between September 13 and October 1. The Merlot ripened first, followed by the Cabernet Sauvignon, and Cabernet franc was last to be picked, all at an average of 23.1° Brix, 0.75 TA and 3.33 pH. The finished wine has 13.5% alcohol, 0.7 TA and 3.44 pH after two years' ageing in Nevers 60-gal barrels. The 1983 DMR Chardonnay has 13.7% alcohol, 0.7 TA, 3.01 pH, and 0.4% RS.

Diamond Mountain Ranch represents 120 acres within Sterling's 800 total Napa Valley acreage divided among eleven ranches located in Napa, Rutherford and Calistoga. DMR is truly hillside: It consists of a north-facing slope beginning at 800 feet elevation and topping out at 1,600 feet. Plantings range from rolling bowls up to a 60° slope.

The ranch is rated region II by Sterling vineyard manager Tucker Catlin and receives an average annual rainfall of 45

inches. The site was terraced by William Hill in 1976 and sold to Sterling in 1977. Catlin describes the deep, well-drained soils as ranging in extremes from volcanic ash to gravelly clay loam. There are 40 acres on the upper ranch that are much cooler than the lower 80 acres, which are below the inversion layer.

Plantings began in 1976-77 on St. George rootstock of Cabernet Sauvignon, Chardonnay and Merlot by Hill. In 1978, 37 acres were planted on AxR 1 rootstock to Cabernet franc, Sauvignon blanc and Cabernet Sauvignon. In 1979, the final six acres were planted to Chardonnay on AxR 1 rootstock. In 1983, 16 acres of Cabernet Sauvignon were T-budded to Merlot to increase the winery's total of Merlot grapes.

DMR today is planted 7 X 13 to 40 acres of Chardonnay which yielded 2.5 tons/acre in 1984, 31 acres of Cabernet Sauvignon which yielded 2.7 tons/acre in 1984, 25 acres of Merlot which yielded 3 tons/acre in 1984, seven acres of Cabernet franc which yielded 2.8 tons/acre in 1984, and 18 acres of Sauvignon blanc which yielded 2.5 tons/acre in 1984.

What hurdles have been overcome to make this hillside vineyard (which is harvested in 27 blocks over 3 to 4 weeks in blocks between 0.86 acre and 13 acres) produce?

The first hurdle was erosion control, which involved water run-off management and cover crops. Many grasses were experimented with and today zorro fescue with a little blando brome covers the entire acreage. Management of the cover crop was an experiment: to mow and/or disc?

DMR soils have a tendency to crust—up to one inch in thickness, preventing water absorption. Catlin's current procedure is to mow in March at 4-5 inches off the ground to knock down tall winter and spring native vegetation and cut up pruning brush. In mid-May the vineyard is disced after cover crop seed maturation to ½ turn to leave a straw mulch, re-seed the cover crop and knock down summer weeds.

Another hurdle was to overcome a phosphorous deficiency which restricted the set discovered by a 1979 petiole analysis of vines planted in soil with a low pH range of 3.9—5.5. Between 1980-84, a mono-ammonium phosphate mixture of 11-48-0 (nitrogen-phosphorus-potassium) in annual amounts of 1/5 lb/vine has been added by hand to drip catch-basins next to each vine. This has improved yields from ½ ton/acre to the previously mentioned 1984 yields.

Water management is an ongoing question for Catlin. Drip irrigation was installed in the entire vineyard to assist vine development. Today, two wells supply a 3-acre foot reservoir to hold well water and only 10 acres require no irrigation. A 1.5-acre experimental block was established in 1985 in cooperation with Dr. Mark Matthews of UC Davis for a 3-5 year analysis of the following five options:

irrigate 10 gals/week throughout the growing season (normal);

irrigate 20 gals/week throughout the growing season (double);

no irrigation all year (dry farm);

irrigate at 10 gals/week only after the tips have stopped growing, about six weeks past bloom (early stress); or

irrigate at 10 gals/week up until the time just mentioned (late stress).

DMR, due to its slopes, will not accept gondolas larger than 2-ton capacity and each picker must work harder to achieve 1-ton/day than in a valley floor vineyard.

What are the characteristics of DMR that motivate Sterling vineyard and winemaking personnel to overcome these obstacles? Catlin credits the site with creating more stress on Merlot and Cabernet Sauvignon, creating more tannin and thereby potential for ageing resultant wines. Vines bud out earlier than valley floor sites, the winter is warmer, the spring is cooler, it has a more moderate climate with less extremes, more sunlight and less mildew or rot problem.

What of the future for DMR? Catlin hopes to identify more acreage favorable to T-budding to Cabernet franc—a favorite of Sterling winemakers. Pruning is being evaluated: all Cabernet franc is cordon-pruned and is the only variety to be thinned as it is very fruitful, some Chardonnay is cordon-pruned, all Sauvignon blanc is cordoned, and some Cabernet Sauvignon is cordon-pruned but experiences blind-buds.

DMR vineyard-designated Cabernet Sauvignons and Chardonnays will become a regular part of the Sterling lineup. A 1983 Cabernet Sauvignon and 1984 Chardonnay will follow and help, along with Diamond Creek Vineyard and Roddis Cellar, to expand the reputation of Diamond Mountain.

Vineyard block with Sauvignon blanc planted in upper portion, Merlot below, and Merlot and Chardonnay planted in foreground.

The Two Faces of White Zinfandel

The Two Faces of White Zinfandel

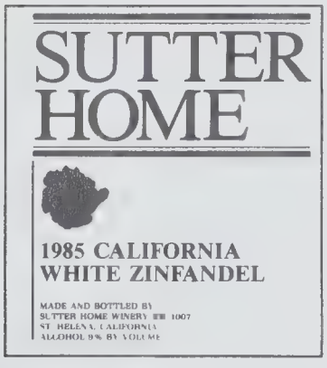
Joe Tarantino

White Zinfandel has only recently skyrocketed to become one of America's top-selling, cork-finished varietal wines, despite serious marketing begun 12 years ago by Sutter Home Winery in California. Sutter Home has enjoyed a virtual monopoly on the market since 1973. Lately, wine giants like Almaden and Beringer have joined in with releases of their own.

The newcomers are undoubtedly trying to capitalize on the proven success of Sutter Home, which will account for more than 50% of the more than two million cases of white Zinfandel projected for bottling in 1985.

"Wineries are jumping on the white Zinfandel bandwagon because it is *selling*," says Almaden public relations spokeswoman Faith Greaves. "The success of white Zinfandel tells you what the consumer wants. The consumer doesn't always want what the industry wants to sell."

The boom has also encouraged a proliferation of other blush wines made from Cabernet Sauvignon, Merlot, Pinot noir, . . . even Barbera. They haven't captivated the public like white Zinfandel, however, due to higher bottle prices and an inability to match white Zinfandel's simple structure.



With so many producers, white Zinfandel has been raised to a status above that of a simple, novice's wine. In fact, there appears to be two distinct roles for white Zinfandel, and it is made in two styles. Consumers created a retail style: a low-end product price-wise, high in residual sugar relative to acid and, quite often, the product of negociants—wine marketers without a winery or winemaker. At best, these wines are an any-occasion quaff. Meanwhile, restaurants have encouraged another style exhibiting a drier, balanced, and ultimately more complex wine.

Steven Vernon, owner/manager of the Brookside Restaurant in Sacramento, CA, says he sees winemakers moving toward a 'food style'. "The drier white Zinfandels go better with food," he says. "They have less pronounced fruit, a nice acid edge, and a bit of tannin. The higher residual sugar wines are cocktail wines and are appealing to novices."

The Brookside offers five 'blush' wines on its wine list, including two white Zinfandels and may offer one or two additional blush wines, such as a Merlot blanc, by the glass. Two years ago Vernon didn't even list a 'blush' wine. He says white Zinfandel accounts for about 65% of his 'blush' wine sales and about 30% of his total wine sales.

"Sales have skyrocketed," he says, "in part due to media coverage of the wine and its modest price. People unfamiliar with vintage varietals tend to shop price. White Zinfandel is in vogue. Its lower cost relative to Sauvignon Blanc and Chardonnay makes it attractive. It is also very versatile. People like it because it can accompany just about anything. It's applicable to lunch, dinner, picnics, or cocktails, and it is a wine that can aid the transition of non-wine drinkers to the pleasures of wine." To insure appeal and a sense of richness, all of California's 40-odd white Zinfandel makers finish their wine with at least some residual sugar, ranging from just under 1.0 g/100ml to around 2.5 g/100ml. The 'dry' style (around 1.0 g/100ml) seems to have found a niche on restaurant wine lists as a table wine, while those versions with more perceptible residual sugar are the first choice as an aperitif.

Within the discussion of style, one must take pH and acid levels into account; that is the core of the stylistic divergence. Ironically, as important as balance (residual sugar to acid and pH) is in determining white Zinfandel's suitability with food, the wine is being overwhelmingly consumed by people who don't give a hoot about wine chemistry.

"Many white Zinfandel fans are people who are just becoming aware of wine," says Cecil De Loach, owner/winemaker of De Loach Vineyards in Sonoma County, CA. "Some are not aware that anything preceded white Zinfandel. At a tasting, I once had a lady ask for Zinfandel. 'The red?' I asked. She said, 'Yes.' When I poured it, she said haughtily, 'No, no, the *red* one, not the *purple* one.' "

The white Zinfandel consumer is apt to be walking the streets, or eating, anywhere in America, according to De Loach, who produces 18,000 cases of white Zinfandel annually. "I've had people visit the winery and ask me where the white Zinfandel is planted," he added, "and now it is a real pleasure to see the interest generated by these wines among long-term serious wine fanciers."

Amir Sabet, assistant manager at the Firehouse Restaurant in Sacramento, CA, has been serving white Zinfandel for almost three years. The restaurant offers four 'blush' wines, two of which are white Zinfandels—in the drier style. "We had sweet white Zinfandel in the beginning," says Sabet. "It did well by the glass, but not by the bottle. We are looking to serve something not too sweet. Our experience showed that sweet wines don't do as well as dry."

The Firehouse has an extensive selection numbering over 200 wines. According to manager Don Brown, white Zinfandel by the bottle accounts for about 7% of his volume sales. "People buy it for its flavor and because of the recognition it has received as being a good, easy-drinking wine. People don't look at the price too much. Our house wine is lower-priced than the white Zinfandel and we sell more white Zinfandel."

Brown adds that white Zinfandel does have a dramatic edge over Chardonnay, for example, in terms of price. "White Zinfandel is a low-end item at $10 to $11/bottle," he says, "compared with $20 to $25 for a good quality Chardonnay in a restaurant."

"I think consumers determined these dry and sweet styles," says Lee Sobon, proprietor of Shenandoah Vineyards, Amador County, CA, which supplies white Zinfandel to over 100 California restaurants. "The majority buy the sweeter style because of its taste. They are new, casual wine drinkers. Restaurants want a wine to complement their food. The dry style is better in that respect. By 'dry' I mean about 1.2 g/100ml residual sugar and a high total acid.

"Here at Shenandoah, we bottle at 0.86 TA. White Zinfandel won't really taste sweet, even at 2.0 g/100ml sugar, if the acid is high enough. With 0.8 TA I can get the sugar to 1.2 g/100ml and still not taste it. At 1.2 g/100ml you get more body and a richer, fuller, long-lasting taste."

Sutter Home Winery proprietor Bob Trinchero agrees: "I get letters from people that start, 'Last year your white Zinfandel was sweeter—or drier—than the year before.' They're talking about the same vintage! The impression of sweetness is hard to judge; it varies from each person. What people do not like is a tart or sour taste. To us, the sense of sweetness is not sugar content, but rather a balance of sugar, acid, pH and mouth feel. We look at acid almost more than anything else, picking at, say, 1.2 g/100ml and shooting for about 10% alcohol."

Unlike Shenandoah's white Zinfandel, Trinchero usually ends up with 2 g/100ml or more residual sugar, although his earliest efforts were bone-dry. Although sold almost exclusively at retail outlets, Sutter Home White Zinfandel is beginning to be offered to restaurants. "We didn't have enough product to offer before," says Trinchero, who believes that restaurant and out-of-state markets are the next big selling arenas for white Zinfandel.

"White Zinfandel goes well with food, especially California cuisine," says Trinchero. "It's good for chain restaurants and for medium-priced restaurants serving lighter foods."

With white Zinfandel selling at about $4.00/bottle retail, restaurants may be found charging anywhere from $6.75 to $16.00. The high-pricing policy disturbs Trinchero a bit. But when he shared his lament with one restaurateur, he was soundly rebuffed. "He defended it by explaining that he had storage costs, glassware, breakage, sometimes returned bottles, basically the same considerations as he had with food, so he had to get an equal return," recalls Trinchero, who offered no rebuttal.

KLR

BUCHER UNIPEKTIN SANOPLAST

KLR Machines, Inc.
47 West Steuben Street (607) 776-4193
Bath New York 14810 • Telex: 510-252-1250

KLR Machines, Inc.
1925-B Francisco Blvd. East (415) 456-4774
San Rafael, California 94901 • Telex: 380-753

Pricing philosophy aside, the movement of white Zinfandel onto restaurant wine and bar lists will undoubtedly encourage more higher total acid/moderate residual sugar bottlings. It should prove beneficial for all producers because it means increased exposure and consumption.

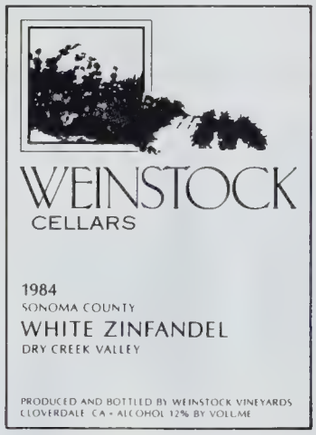
"A waiter or waitress will recommend white Zinfandel without hesitation to a group of diners who order different entrées," says Sobon, "because it will go with everything. For a winery, once you're on a restaurant wine list, it's a source of security. You know where your wine is going and you can depend on a set number of case sales every week or month.

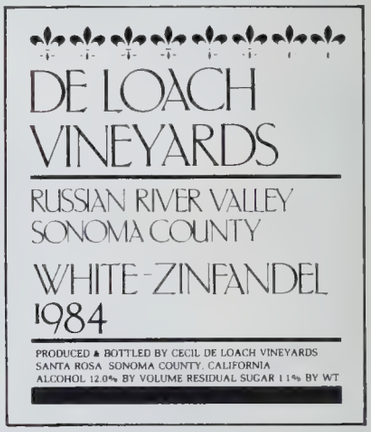
"Only a special promotion/discount will get you a big retail sale. The retail market can be fickle, not because of the consumer, but because of the competition, like a negociant, who will come in with a $1.99 product which pushes yours aside.

"On a good restaurant wine list you get guaranteed exposure because your name is on the list. A diner may not choose your wine, but they'll see your name. If your wine is chosen, it's going to be served with food, which will show it to its best advantage. You can't get that in a retail situation."

There is, however, one retail marketing advantage of white Zinfandel and other similar-style wines, such as Cabernet Blanc made from Cabernet Sauvignon. Tom Ferrell of Sterling Vineyards, Calistoga, CA, points out, "We produced 18,000 cases of Cabernet Blanc in 1984—20% of our production. It is a light, refreshing wine which helps move premium wines by its demand and movement through a distributor. If retail demand for this wine style is strong, your distributor can visit the retail outlets more often and can also put energy into selling premium wines along with the light wine."

With regard to exposing white Zinfandel to the masses, whether through retail outlets or restaurants, Sutter Home has created two new packages. In 1984, a limited amount of sparkling white Zinfandel was sold primarily at the winery. Sutter Home will make 100,000 cases of sparkling white Zinfandel in 1985, which will retail for about $5.00 per bottle. The other innovation is white Zinfandel in 187ml screw-top bottles. Advertised as 'Sutter Home Singles To Go', the new size is seen by Trinchero as a sure bet to capture the single-serving market. "We think we are filling a need for single-serving service," says Trinchero. "This is for the individual, especially those shoppers in packaged stores like 7-11. It's easy to reach in the cooler and grab one to have with your bologna sandwich. It's the same wine as in the 750ml size. At six ounces, with 10% alcohol, it won't affect your performance at work. Restaurants won't have to pull corks or measure amounts. And it won't go bad if you opened it to pour one glass and had to wait a day or two to pour another."





Trinchero created the 187ml bottle for airlines originally, but then realized its potential in convenience chain stores and restaurants. Sutter Home expects to bottle 200,000 cases of 24 4-packs from the 1985 harvest, equivalent to 100,000 cases of 750ml wine. The singles retail for $1.00 each.

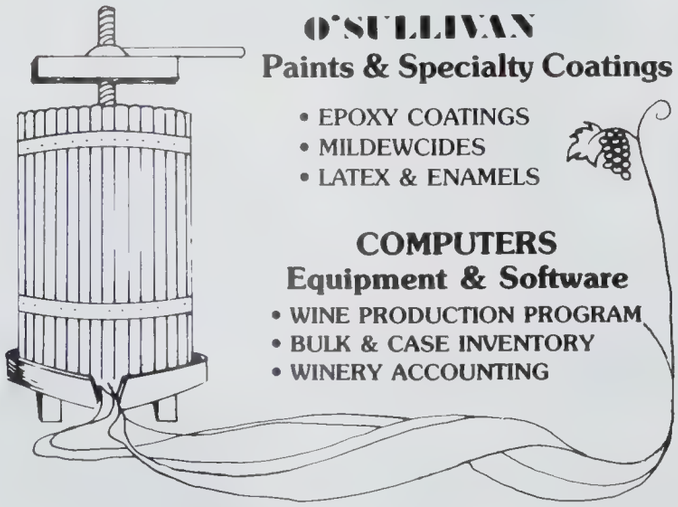
From the viewpoint of a Zinfandel grower, white Zinfandel wine is a solution to the problem of trying to achieve even maturity for previous 'dark' Zinfandels. Robert Weinstock in upper Dry Creek Valley, Sonoma County, CA, has managed over 100 acres (including 25 acres of his own) of Zinfandel vines and other varieties in Sonoma County for over ten years.

"The winemaker's target for 'dark' Zinfandel is 22.5–23.0° Brix," says Weinstock. "For white Zinfandel the picking range is 18.5–20.5° Brix. In the lower range maturation is very even. When some of the grapes go over 21° Brix, maturation in the vineyard, within the row, and within the cluster becomes inconsistent. The top of a cluster might be black, the bottom pink, or one side is black and the other side has pink berries. Production of neighboring vines in the same row will vary significantly. White Zinfandel makes depending on Zinfandel grapes to deliver at harvest much easier."

For all its variations, white Zinfandel seems destined for further growth in America. While the retail market has proven to be wide open to just about any stylistic offering, gaining acceptance in restaurants may encourage a move to drier white Zins. Regardless of whether the style creates increased demand, white Zinfandel has the qualities of endurance: wide appeal and the right price.

PICKERING WINERY SUPPLY

For All Your Maintenance & Chemical Needs
Exclusive Distributors



O'SULLIVAN
Paints & Specialty Coatings
• EPOXY COATINGS
• MILDEWCIDES
• LATEX & ENAMELS

COMPUTERS
Equipment & Software
• WINE PRODUCTION PROGRAM
• BULK & CASE INVENTORY
• WINERY ACCOUNTING

WINERY CHEMICALS
100 lbs. TO CONTAINER LOADS
ALL TYPES OF FLOOR COATINGS

415-821-2400

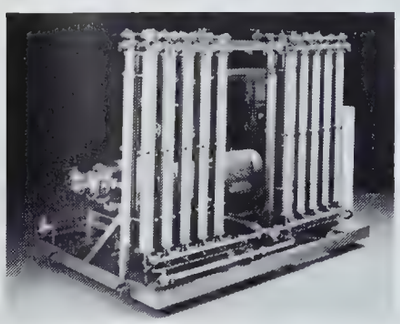
1300 22nd St., San Francisco, CA 94107

Millipore ultrafiltration helped Lohr Winery harvest gold and silver.

"We invested in our Millipore Process UF System in 1982, and we couldn't be more pleased with the results.

"A non-vintage J. Lohr Cabernet Sauvignon, containing 40% ultrafiltered wine, won a gold medal in its class at Orange County and a silver medal at the American Wine Competition. And our 1982 Johannesberg Riesling won silver medals at the 1983 Orange County and Riverside Fairs."

—Barry Gnekow, Winemaker



In the typical Millipore ultrafiltration system pictured, oxidized and polymerized phenols, heat-unstable proteins, yeast and microorganisms can be removed in a single step. And ultrafiltration produces a 5% higher yield of high-quality product wine than with fining and traditional filtration techniques.

For more information on Millipore Process UF Systems, call our Technical Services Department toll-free at 800-225-1380 (in Massachusetts, dial 617-275-9200) or write Millipore Corporation, Bedford, MA 01730.

MILLIPORE

BERINGER'S NEW RESEARCH PROGRAM

Diane W. Mayfield

Beringer Vineyards has recently initated an extensive research program at their winery in St. Helena, CA. The program, under the direction of winemaker Ed Sbragia and research enologist Ron Bunnell, includes pilot scale and production scale experimentation designed to establish cause and effect relationships between processes in production winemaking and wine style.

"We take the winemaking process apart piece by piece to study the component parts," explains Bunnell, "how they relate to each other, and how each affects wine style. We're looking at stylistic manipulation from a rational basis."

This experimentation with unit processes commenced with the 1984 harvest and involved a large number of variables. Included among these were studies on extended lees contact, yeasts, must manipulation, SO_2 levels, and malolactic fermentation.

Patrick Leon, formerly of Georges du Boeuf & Company, served as consultant and, together with Sbragia and assistant winemaker David Schlottman, helped design the first-year experiments.

Pilot scale experiments are conducted in a new 3,000 square-foot building which is insulated to R-25 and cooled with ceiling-mounted commercial air-conditioners. A small crusher-stemmer and a hydraulic basket press and other scaled-down equipment allow for production and processing of lots from 5 gallons to 500 gallons.

5-gallon experimental lots fermenting in temperature-controlled troughs.

Barrel fermentation experiments in Beringer's new research program.

Fermentation takes place in 10 or 15-gal stainless-steel containers or in 5-gal glass carboys. To control fermentation temperatures, the containers are placed in large galvanized steel troughs filled with water refrigerated by the main winery direct-expansion ammonia system. While early experiments involved primarily Chardonnay, heat control is now available for red must fermentations.

Pilot winery experiments for 1985 included:

(1) Skin contact time

(2) MLF vs. non-MLF and blends of MLF wines with non-MLF wines

(3) SO_2 reduction

(4) Timing of SO_2 additions

(5) Yeast strain evaluation

(6) Chardonnay vineyard location evaluation

(7) Maturity level evaluation of various Chardonnay vineyards

(8) Must chilling

Vice President-Vineyards Bob Steinhauer and viticulturist Jim Frisinger are involved in vineyard experiments related to the pilot winery program. Among these are included:

(1) Irrigation—scheduling and resultant wine quality

(2) Rootstock evaluation (6 different rootstocks are being tested for Chardonnay)

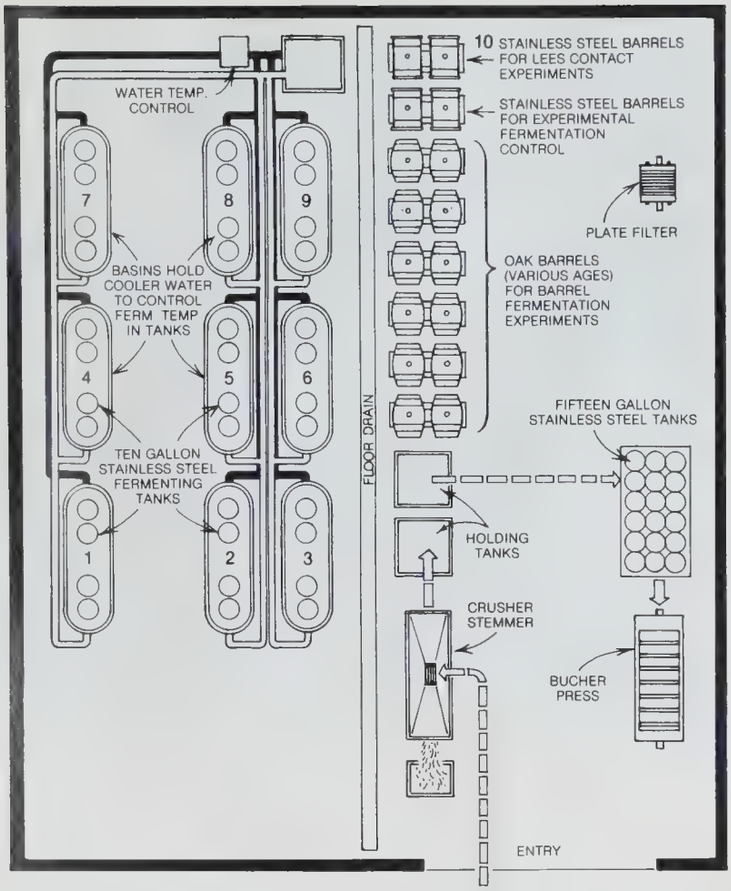
(3) No-till cultural practices for Chardonnay

(4) Pruning—canes vs. cordons for Chardonnay

After fermentation of individual lots, the experimental wines are subjected to sensory and analytical evaluations. The sensory evaluation program involves blind tastings of the wines by the winemakers, after which the wines go to a taste panel consisting primarily of lab and cellar personnel for difference testing. In 1985, investigations were made into the use of ratings scales and quantitave descriptive analysis.

Analytical evaluation includes a battery of lab analyses—VA, TA, pH, sugar, alcohol, must solids, potassium, malic, tartaric, etc. Special tests might be run on certain experimental lots such as amino acid profiles or phenolic profiles by HPLC.

The final phase involves decision-making and scale-up. When the results of the sensory and analytical evaluations are in, decisions are made concerning future experimentation. Scale-up is necessary in order to translate experimental results into production-level winemaking. Thus experiments are conducted on the production level after the initial pilot scale. Since about 40% of Beringer's annual production of Chardonnay is barrel-fermented, scaling up often means a move from pilot



Floor plan of Beringer's research facility.

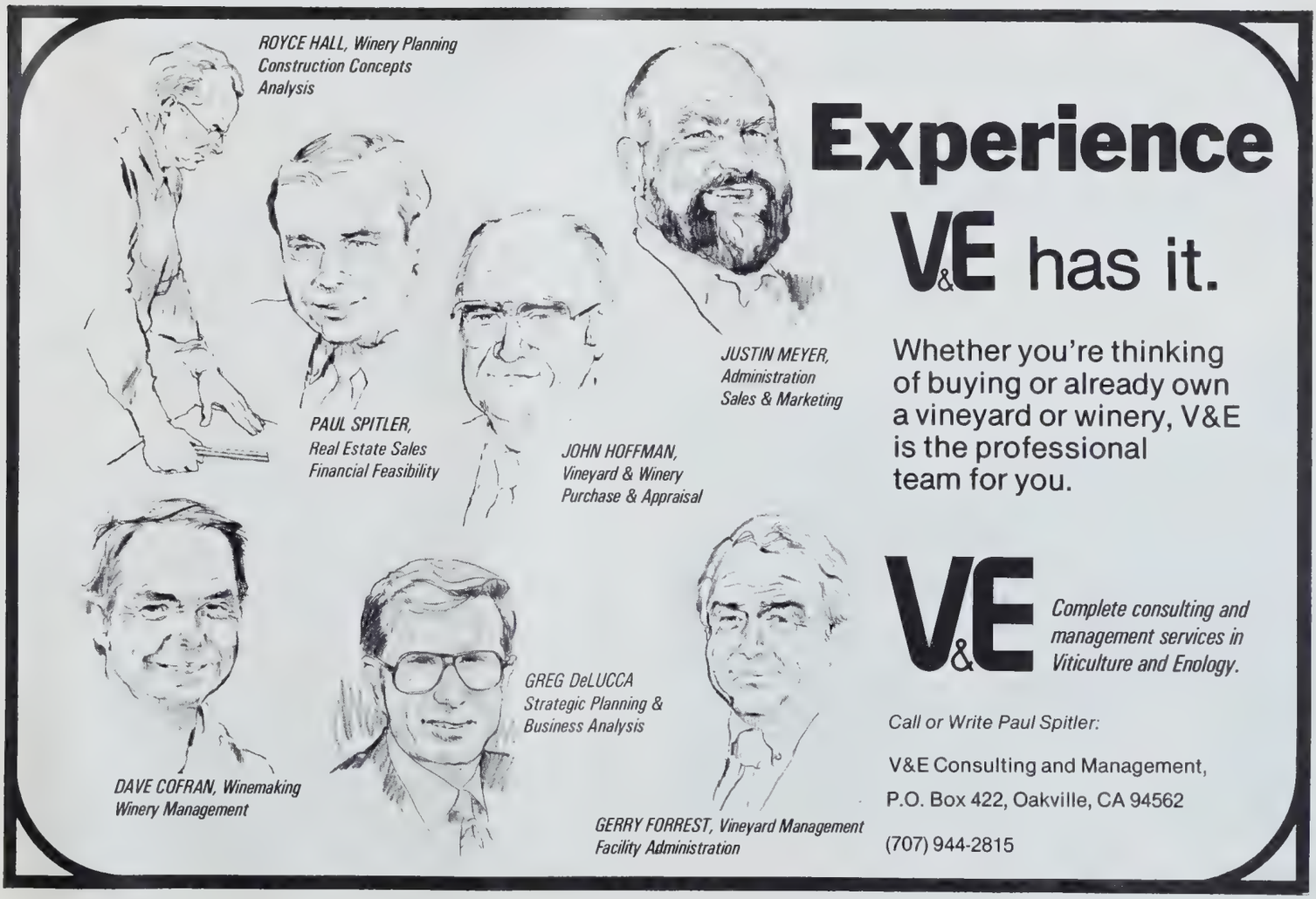
winery lots to 60-gallon barrels. Experiments being conducted in barrels include:

(1) Temperature of barrel fermentation
(2) MLF vs. non-MLF and proportional blends of each
(3) Extended lees contact in barrels
(4) Barrel fermentation blending trials: proportional blending of stainless-steel and barrel-fermented lots
(5) barrel ageing programs

Because these full-scale experiments eventually translate into production-level winemaking, a library is kept of these wines for continued evaluation. This is in contrast to small-scale experimental lots, which are not aged in barrels as production wines.

Beringer's pilot winery is not limited to fermentation experiments. Assistant research enologist Tom Peffer is working with Bunnell on HPLC analyses, while consultant Alice Nightingale concentrates on production of botrytis spores in the laboratory for controlled infection of Sémillon. By spraying the harvested clusters with spores in a controlled environment, botrytis can be encouraged without the danger of secondary rot. Botrytised Sémillon has been produced commercially at Beringer by this method in very small quantities since 1980.

The Beringer research program is designed to take advantage of science and technology to act as a tool of the winemaker in decision making. The Beringer winemaking team feels that producing quality wines requires more than finding statistically significant differences. Once the cause and effect relationships between manipulation and resultant style are understood, it is still the personal choice of the winemaker which determines the style of wine in the bottle.



The Taylor Wine Company's Developmental Winery

Ray & Eleanor Heald

For many years, The Taylor Wine Company (TTWC), Hammondsport, New York, has experimented with cultivars. In December 1981, the decision was made to provide a pilot scale facility in which wines could be prepared in small lots for evaluation of viticultural and vinification practices on wine quality, and wine potential of new grape varieties.

1982 was the first crush for the self-contained developmental facility located within TTWC winery. Total floor space of 4,521 square feet houses a press room, two tank rooms, a bottling room, tasting room, and office.

Equipment includes: (1) a stemmer-crusher, (2) a 1.5-ton membrane press, (3) a bladder press for very small lots, and (4) a 540-gallon pulp tank with mixer and pumps. Lot sizes pressed in the developmental winery have ranged from several pounds up to five tons.

Tank rooms are refrigerated to 50°F and the temperature can be maintained at 35°F if required. Jacketed stainless steel tanks, ranging in size from 144-2,220 gallons, provide control of fermentation temperatures and the capability to stop fermentation at a desired level of natural residual sugar. A 3-hp self-contained air-cooled chiller unit provides the necessary cooling capacity for temperature control as well as cold stabilization. It easily cools 3-4 fermenters simultaneously and offers great flexibility.

One tank room contains 15 stainless steel tanks and nine 58-gallon French Limousin barrels (used in 1982 for barrel-aged Seyval and in 1983 for barrel-fermented Seyval) and three 58-gallon French Nevers barrels, for a total capacity of 9,024 gallons. The second tank room contains stainless tanks totaling 49,885 gallons. Most of these tanks, ranging in size from 144–2,230 gallons, came from Gold Seal Winery when that facility closed–offering great savings to the developmental winery project for the cost of moving them from one facility to the other.

Wines can be rough- or polish-filtered for bottling with a plate-and-frame filter. A Walton test filter is used for evaluation of filtration efficiencies. Using a Millipore Ultrafiltration Lab Unit, studies have involved color and flavor modification as well as protein stabilization.

Routine laboratory analyses are performed in TTWC lab. A gas chromatograph is used for monitoring alcohol, fusel oils, and esters, and an automatic titrimeter measures TA and pH. An atomic absorption unit measures metallic ion composition of wines.

Two presses and stemmer/crusher used in developmental winery.

Bottling line for The Taylor Wine Company's developmental winery.

The bottling room contains carboy storage racks and a bottling line consisting of a bottle rinser/sanitizer and a monoblock filler and corker. Prior to filling, the wine is sterile-filtered through both pre-filter and membrane cartridges. The Seitz Tirax low vacuum filler and corker will operate at a maximum speed of 25 bottles/minute.

The tasting room has a conference table for informal tasting and conferences, a sample preparation area, and six individual booths for taste panel studies. Each booth is equipped with special lighting to simulate different light conditions–daylight, store light, incandescent light, and a red light that cancels out brown tones. For evaluation purposes, wines are retained for one year in a library for follow-up tastings to evaluate ageing processes.

The developmental winery project is funded under a normal budgetary process. Senior winemaker Tim Holt manages both the cost and the operation itself. Initial start-up cost was $350,000 and an additional annual cost is approximately $22,000.

Winemaker Patricia Herron supervises day-to-day operation. During the harvest period, August 1-December 1, an intern from either UC Davis or California State University at Fresno assists Herron and Holt. This person gains valuable experience in the vineyards, laboratory, and developmental cellar. "We also give this person a chance to learn 'production winemaking'," states Holt, a CSU Fresno graduate. A cellar worker is also being trained by Herron for year-round work.

In 1983, 25 experimental lots were made principally in 30-gallon batches and a few were as large as 1,000 gallons. 50 to 60 5-gallon fermentation lots were used to evaluate 23 different German experimental varieties from Geisenheim. From the one-year experiment, the quantity has been reduced to six German experimental varieties plus GW-9, GW-10, and 65.444.4 from the experimental station in Geneva, NY. In 1984, after eliminating certain grape varieties and vineyard sites from the previous two vintages, only 12 lots were made from experimental plantings.

Small stainless steel tanks and oak barrels in The Taylor Wine Company's developmental winery.

Developmental winery projects have included:

(1) Vineyard site comparisons and cluster thinning studies

(2) Ultrafiltration studies involving protein stabilization

(3) Active-dry yeast strain comparisons (California Champagne, Epernay II, Montrachet, Pasteur, and Prise de Mousse) including fermentation rates, settling, ester production, ability to ferment to dryness, and eventual wine quality—all done with replicate samples

(4) Effect on Chardonnay wine quality using yeast autolysis

(5) Maceration of Baco noir

(6) Production of Vidal Ice Wine

(7) Barrel fermentation and ageing of Seyval

"From the Seyval barrel experiments, we hoped to learn how those wines would differ from the regular Great Western varietal Seyval that is totally vinified in stainless steel," states Holt. He concludes, "After all the tests, we never got a definitive answer because people either liked it or hated it. What we found out is that French hybrids, in general, do not have as much fruit intensity as either Chardonnay or Sauvignon blanc. Therefore, you have to be careful of any barrel or wood intensity because you rapidly reach a point where you lose all the fruit."

(8) Vinification of *vinifera* varieties

In 1982, TTWC had 18 acres of *vinifera* and used the developmental winery to begin production of these wines. In 1985, some 100 acres produced Chardonnay, Johannisberg Riesling and Gewurztraminer with 50 more acres planted.

The large size of the developmental winery allows TTWC to release some experimental lots, around 1,100 cases, for commercial sales at the winery or selected upstate New York markets. An example of one such lot is the 1984 Estate-Bottled Special Selection Gewurztraminer.

Approximately 3.5 tons of light-red Gewurztraminer berries were harvested on October 2, 1984, from vineyards on the west side of Seneca Lake in the town of Torrey. After eight hours of skin contact, the free-run and light-press juice were fermented at 58°F in stainless steel. Fermentation was stopped at 2.1% residual sugar. The wine was stored in stainless steel tanks at 40°F until bottling. The finished wine has 11.5% alcohol and 0.73% TA.

(9) Whole berry project with early-picked Chardonnay for sparkling wine production.

Whole clusters were pressed and vinified in the traditional French method. This project now constitutes the groundwork for TTWC méthode champenoise sparkling wine program.

Projects for the 1985 crush included: (1) the presence of whole clusters in a fermenter of Baco noir followed by maceration to modify the flavor characteristics of the resulting wine, (2) barrel fermentation of Chardonnay in conjunction with yeast autolysis, (3) vinification of experimental German and New York varieties, and (4) production of traditional vintage port—arrested fermentation by the addition of brandy.

TTWC's commitment to a developmental winery has resulted in the release of several new products, now in limited sales, but scheduled for wider distribution as more vineyards come into production. Three estate-bottled wines presently include Gewurztraminer, Johannisberg Riesling and Vidal. Non-estate-bottled Ravat (Vignoles), "a versatile grape variety," as Holt views it, was also a recent new release.

According to Holt, "These wines all have a 9.5—11.5% alcohol range to appeal to a consumer market that is health-oriented and thinking light in both food and wine selections. The consumer can expect a new image and wines of increased quality under the Great Western label as a direct result of the developmental winery."

Know Your Wine

The better you know your wine, the better your wine will be. VINQUIRY offers complete enological capability to help you monitor your wines, including:

- ☐ *Organic acid profiling by HPLC*
- ☐ *BATF certified export analysis*
- ☐ *Critical stage analysis*
- ☐ *Bottling quality assurance*
- ☐ *Laboratory supplies and glassware*
- ☐ *Consultation and research*

VINQUIRY

WINEMAKERS SERVICE AND RESEARCH LABORATORY

16003 Healdsburg Avenue
Healdsburg, CA 95448

(707) 433-8869

Burgundian Viticulture: Vine Varieties, Part II

Don Blackburn

Chardonnay, for some reason, has received little attention in the literature over the years. Briatte (1) at the turn of the century referred to 'chardenai, or chaudenai, contributing much to the high quality of the white wines of Burgundy'. That sparse, if complimentary, reference was overshadowed in the same passage by a lengthy discussion of the Pinot family. Other authors tended to make equally brief references to what they considered a superlative variety. The same applies to enological texts. Writers throughout the 18th and 19th centuries describe the details of Pinot noir production, yet they usually leave out Chardonnay.

Perhaps the lack of enological information is linked to the Burgundian frame of mind. Red winemaking in Côte d'Or tends to be a subject for discussion and exchange of ideas, and this in a culture much more reticent than ours in the New World. Folks in Volnay know that Legrand punches the cap four times a day, and that de Montille uses many new barrels. Such things are common knowledge. But in Meursault, a Chardonnay-producing stronghold, no one knows much about each other's methods. They don't hide the information; it just doesn't come up. It's a non-secretive, passive feeling, as if the elements that matter are too subtle to put into words.

Then again, the lack of viticultural information may be related to the relative genetic homogeneity of the variety. There being few types of Chardonnay, there may be less to say about it than about the polymorphous Pinot noir. Yet the short term impact of clonal selection of Chardonnay in Côte d'Or indicates that it does, in fact, vary significantly from plot to plot, and within a given vineyard.

In any case, Chardonnay has existed in eastern France for centuries, under names such as Noirien blanc and Aubaine. Still known in Chablis as Beaunois, it has been referred to at times as Pinot blanc. Chardonnay is not, however, a member of the Pinot family, and shows none of that family's characteristics.

Two forms of Chardonnay differ from the strain widely planted. A Chardonnay rosé exists in rare instances, but does not deserve attention beyond passing mention. Chardonnay Musqué is an aromatic mutation of the common strain. Its slight muscat aroma is not suited to Burgundian vinification methods. In addition, it ages rapidly and ungracefully.

Chardonnay tends to have higher yields than Pinot noir, despite its predilection for shatter and 'millerandage'. Chardonnay is also a favorite target for fanleaf virus, whose abundance in Meursault and Puligny-Montrachet incited the French government to underwrite clonal selection to improve its sanitation. Chardonnay achieves higher sugar levels than Pinot noir in adjacent vineyards. Moreover, it responds surprisingly well when harvested at levels as low as 19° Brix or as high as 24° Brix.

Other Varieties

Gamay has always competed with Pinot noir in Côte d'Or. A Burgundian writer (9) noted in 1868 that it was more widely planted than Pinot noir: "It is rare that a vineyard is not planted to both fine and common varieties." Gamay's higher yield and greater disease resistance has made it attractive economically. However, whenever the trend has swung away from fine wine production and Gamay has begun to replace Pinot, local ordinances have been enacted to push Gamay back into its proper place. Tradition holds that Gamay only produces fine wine on granitic soil (e.g. Beaujolais), and that in Côte d'Or it should be limited to vineyards unsuitable for Pinot noir.

Aligoté is a white variety characterized by high vigor and canes that turn a peculiar reddish brown with the progress of lignification. It produces a light white wine which is usually acidic and insipid if it is grown in highly fertile, clay soils. If grown in Burgundy's lighter hillside soil, it can produce a wine fragrant and crisp, and sometimes superior to most of France's dry white wines. Aligoté's ancestor is reputed to be the Gouais blanc, reported in the region as early as the 17th century.

Aligoté has its own appellation—Bourgogne Aligoté—and may not be added to any other appellation. On the other hand, its body is often reinforced surreptitiously by the addition of a bucketful of Chardonnay per barrel.

Ampelographic history recounts the migration of Melon (Melon de Bourgogne) from Côte d'Or to western France, where it produces wine under the Muscadet appellation. In Burgundy, it is now quite rare, though it once prospered in the heavy clay soils of the plain of the Saone River. It yields there a coarse wine of little interest. It has been confused on occasion with common (i.e. vulgar) strains of Pinot blanc which manifest almost no lobing of the leaves. Melon normally has a slightly paler green leaf than Pinot blanc, but it is not always easy to distinguish.

REFRIGERATION TECHNOLOGY, INC.
5130 BLANK ROAD, SEBASTOPOL, CA 95472 (707) 823-3222

WINERY REFRIGERATION

DESIGN • INSTALLATION • SERVICE

75% free-run from the NEW CEP!

vaslin

The CEP offers you a unique system of dejuicing and pressing. The dejuicing action provides up to 75% high quality free-run juice before any pressing begins. In the automatic pressing cycle a programmable electronic sensor allows you to control the amount and rate of additional juice extraction.

The new CEP System merits your serious consideration. Please call or write for a complete descriptive presentation.

fp Packaging, Inc.
*A subsidiary of Fleming Packaging Corp

P.O. Box 881 So. San Francisco, CA 94083-0442 / Phone: (415) 871-5497

Other varieties which have been grown in Burgundy, but which are not significant today, are Ménu blanc (Peurion), Meslier, Enfariné, Savagnin, Tinevache, Amandelle, Machuze, Piget, Gamay Freau, and Portugues bleu.

Evolution of Encepagement

The term 'encepagement' is a most useful word, having no English equivalent of which I am aware. It refers to the group of varieties present in a particular setting, be it a whole region, or a single vineyard, or a batch of wine. The components are often listed as percentages or proportions. For example, the encepagement of Château Cheval Blanc is ⅔ Cabernet franc, ⅓ Merlot.

The encepagement of Côte d'Or has undergone changes at least as great as most other French regions. The first major such event of which we have substantial knowledge is the invasion of Gamay and the high-yield forms of Pinot noir in the period between 1780 and 1850. Gamay regressed in the 20th century when the A.O.C. system prohibited it in the finer vineyards.

The evolution of white varieties in Côte d'Or saw Chardonnay and Pinot blanc disappear from red wine vineyards along with Pinot gris in the 1800s. In the 1920s, it saw Aligoté chased from Le Montrachet and then from all the finer white vineyards of the Côte de Beaune. The few vineyards in Pinot blanc do not play a substantial role in viticulture today.

Pinot gris was largely torn out between 1800 and 1850 due to its lower yield and because of the trend toward heftier wines (6,8). J. Lavalle (4), writing in 1855, concluded that the decrease or disappearance of the Pinot blanc and Pinot gris component in the red wines of Burgundy furnished 'wines with more color and firmness, but at the cost of finesse and bouquet, and perhaps conservation'.

In 1820, M. Ouvrard, owner of Clos Vougeot, ordered the tearing-out of all the whites in his vineyards. His records note that 40% of Clos Vougeot was Chardonnay, some of which was vinified by itself as a white wine, while some was included in batches of Pinot noir. The same vineyard also included 500-600 vines of Pinot gris.

The tradition of a small proportion of white grapes in batches of Pinot noir has persisted up to the present day. Modern A.O.C. legislation permits an addition of up to 15% of authorized white varieties.

Current regulations do not distinguish between Pinot 'fin' and 'gros Pinot', nor between Pinot 'tordu' and Pinot 'droit'. Thus, growers remain quite capable of circumventing the government's efforts to banish the high yields which dilute wine quality. Pinot 'droit' is apparently more common in Côte de Nuits than in Côte de Beaune. Some growers diminish its sinister influence by keeping it on a low fertilizer regime, and by generally checking its vigor. Some growers only plant Pinot 'droit' in the rows which the tractor straddles during its passage (every fourth row, for example). This permits spraying when the vineyard needs 'tying up'.

On the whole, the best growers avoid Pinot 'droit' (and especially 'gros Pinot'). Pinot 'fin' remains the main source of fine Burgundies. It should be pointed out that, while Pinot 'fin' is less vigorous and less fruitful than these other strains, its grapes only live up to their potential if the winegrower makes many appropriate decisions reaching well beyond the choice of a particular strain.

References

1. Briatte, F. *Nouvelle Viticulture Pratique.* Premont (Aisne), 1905. p.14-15
2. Estienne, Ch. & Liebault, J. *L'Agriculture et la Maison Rustique.* Lyon, 1618. p.589
3. Gadille, R. *Le Vignoble de la Côte Bourguignonne.* Paris, 1967. p.156-169
4. Lavalle, J. *Histoire et Statistique de la Vigne et des Grands Vins de la Côte d'Or.* Digon, 1855. p.30, 100
5. Machard, H. *Traite Pratique Sur Les Vins.* Besancon, 1874. p.33-37
6. Morelot, Dr. *Statistique de la Vigne en Côte d'Or.* Paris, 1831. p.30
7. Monjeu, Pezerolle de. *Conseils que donne un Vieux Vigneron aux Habitants de Pommard et de Volnay.* Beaune, circa 1775. p.37-38
8. Tainturier, Abbé. *Culture des Vignes de Beaune et des Lieux Circonvoisins.* Dijon, 1763. p.47
9. Vergnette-Lamotte, A. de. *Memoire sur la Viticulture et l'Oenologie de la Côte d'Or.* Dijon, 1846. p.47-49
10. Viala, P. 'La Reconstitution de la Côte d'Or.' *Bulletin de la Societé Vigneronne de Beaune,* 1891. p.4-5

Exclusive Representative For

TONNELLERIE MERCIER

The finest French barrels, puncheons and tanks. Our wood is hand picked from the major forests of France by our maitre d'tonnellerie, and coopered to your satisfaction. We always maintain inventory at Custom Cooperage.

KENTUCKY COOPERAGE

American oak barrels fire set over an oak fire. The wood is air dried rather than kiln dried to help soften the flavors of the oak.

INNERSTAVE™

Extend barrel life indefinitely.

INNERSTAVE™ is the only real alternative to the new barrel. The price of INNERSTAVE™ can save you $160 per barrel.

All products sold by Custom Cooperage are warranteed by us.

custom cooperage

1194 Maple Lane, Calistoga, CA
(707) 942-6902

Restaurant's Success with New York Wines

Ray & Eleanor Heald

Can a restaurant succeed when it sells wine limited only to producers in its home state? One New York state restaurant does this extraordinarily well. How is it done?

Just outside Ithaca, New York, on route 13, within a 30-mile radius of 20 Finger Lakes region wineries, is Michael Turback's restaurant. A Victorian-style house situated prominently on a hill and announced by a large, colorful sign, Turback's restaurant features New York wines exclusively.

"We haven't always featured New York wines," explains Turback. "In 1977, the first year that Glenora, Wagner and Heron Hill wineries produced, I said to myself that if these wines were already so well-received then I wanted to hitch my wagon to the premium wine industry in this state—and I did.

"The original wine list consisted of only 12 wines. The New York producers have grown so much that we cannot include them all. We have an average cellar inventory of 40,000 bottles. I limit myself to wineries producing serious table wines. I taste everything—all new releases and experimental lots—to constantly revise the list. Now, I believe we need a computer to keep inventory."

The current wine list, organized by grape variety from 1980-1984 vintages, has 182 entries ranging in price from $8.00–$65.00. There are 86 white wines, made up of 44 *vinifera* (including 22 Chardonnays from 13 producers and one Rkaziteli) and 42 French hybrids (including 15 Seyval blancs and one Rayon d'Or). Red wines on the list include 11 *vinifera* and 28 French hybrids. 12 wines, both red and white, are available in 375ml. The list also includes 12 sparkling wines and 29 dessert wines (14 available in 375ml).

Vertical depth is generally lacking because the principal viticultural areas in New York state (Finger Lakes, Hudson Valley and Chautauqua County) are primarily white wine regions, the premium wine industry in New York state is still very young, and a track record of longevity has not been established.

"In general, I buy five cases of a wine if I like it and 10 cases if I think it is great," says Turback. "If the wine is exceptional,

I'll buy all that I can up to a maximum of 25 cases—10 cases initially and 5 cases thereafter as needed. The wineries cellar the wine for us. In the case where a wine's supply is limited, such as the 1983 Herman Weimer Chardonnay, I will mark up the wine so that we do not run out of it before we revise our list, which we do every six weeks."

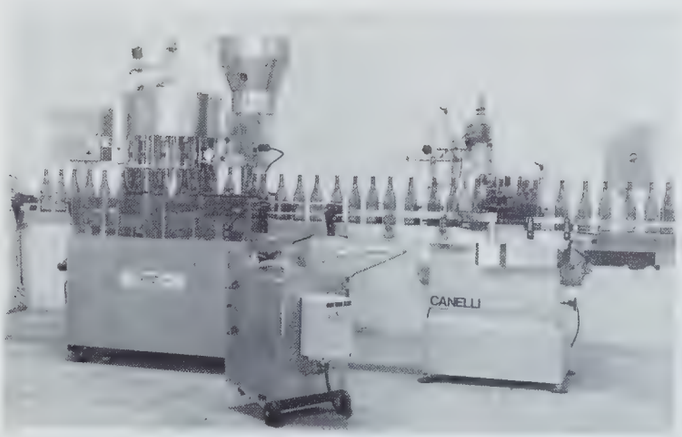
Open seven days a week for dinner, the restaurant informally seats 90 people at tables with green-print oil cloth coverings lit by Tiffany lamps and surrounded by hanging plants. Antique photographs, a collection of old and rare books, and empty bottles of local wines grace the nearby walls and shelves.

Each table has one bottle of a featured wine. "It is a wine that

Fischer & Schug Winery Equipment

Rauch Stemmer-Crusher
Membrane Presses
Plate and Lees Filters
Schneider Pumps and Mixers
Semi-Automatic and Automatic
Bottling Equipment

Please inquire about Used Winery Equipment
Sales, Parts & Service
940 Dowdell Lane/P.O. Box 556
St. Helena, CA 94574
(707) 963-7000



Bottling Line Installed at Whitehall Lane, St. Helena, CA

I like and want to introduce people to," describes Turback. "We want to take the mystery out of wine. Since we feature wines made nearby, many of our customers know the wineries from visits and they often pass them on their daily travels. Many customers have followed the growth of the wineries and their evolving styles.

"Our relationship with the wineries is excellent. Not all of the winery people get along with each other, but they all get along with me. They are great supporters of our program. They have seen us do it right and we see many of them in the restaurant regularly.

"Our customers have the opportunity to see and talk to the winery people and become familiar with the face behind the bottle during a summer wine tasting series we host. They feel part of the local wine industry and therefore support it and us."

The series features new releases from a single winery on 10 Mondays between July 1 and early September. The winemaker or owner participates in an informal tasting that begins at 6:00 pm and extends through the dinner hour. After the tasting, for which there is no fee, participants can stay for dinner, where frequently Turback's chefs have prepared special dishes to accompany the wines.

"We always purchase the wines for the tastings—they are not donated," says Turback. "Every winery wants to participate. It is good for them and good for us, and our customers have made it a popular summer event. Our wines are affordably priced. We double the wholesale price and add $1.00. We gross $750,000 annually, and virtually every dinner party orders wine.

"In a typical restaurant the server first takes a cocktail order. Our wait-people present the wine list first and explain the restaurant's concept of food and wine. Our staff is trained to steer customers toward a wine they will enjoy and appreciate, and to handle wine service. We do not have a sommelier. We teach our staff about wines in several ways. Monthly tastings with the waiters/waitresses help us select wines. We visit wineries as a group. Some staff people even work in the vineyards on occasion, thinning the crop or tying up vines.

"I know there is a lot of profit in selling Martinis, Manhattans, and Whiskey Sours, but our program is food and wine. I don't want our customers to ruin their palate before they taste our food. If a patron insists, we serve a limited number of standard cocktails. Liquor sales are minimal—our concept is more important than a few dollars."

Turback installed a nitrogen sparging system from Premier Cru in Syracuse, NY, for the wine bar, so that wines can be opened and served by the glass. Three white wines, two reds and a dessert wine are available and the selection changes twice weekly. Four glasses are poured from a bottle and the cost is proportional to the bottle price. A 3.5 oz taste serving is also offered.

AMERICAN WINE SOCIETY 1967

The American Wine Society is a national, non-profit organization devoted to educating its members and the general public about all aspects of wine-production, use, and appreciation. The Society is independent and has no commercial affiliation.

Membership is open to any interested person; wine enthusiast, professional in the wine business, amateur winemaker — anyone who wants to learn more about wine

Annual (calendar year) dues are $20.00 per individual or couple which includes the Society's quarterly Journal, Special Bulletins and much more

For free brochure write to: AMERICAN WINE SOCIETY, INC.
Dept. PW, 3006 Latta Road, Rochester, N.Y. 14612
(716) 225-7613

Michael Turback inspects cellar inventory. (photo by Joan Sage)

"At first, we had customers who asked for a California Cabernet Sauvignon or a French Bordeaux. We resisted adding these wines to our list and now are glad we did. For each snob who wouldn't be adventurous and explore our list, we have 20 people who return because we do feature New York state wines. As an additional service, we charge $4.00 corkage for the patron who brings in a special wine.

"We provide a good taste experience for people traveling to our area. Travelers want to learn about local customs and experience local food and wine—we provide that." Turback stresses 'New York State Dining' at the top of his menu. Items such as Cornell Barbeque Chicken (chicken breast marinated in a white barbeque sauce developed by nearby Cornell University), Filet of Ithaca Tofu (using fresh tofu produced locally by the Ithaca Soy Co.), and Coquille Aurora (scallops, first boiled in local Aurora wine, then blended in a sauce made from the remaining liquid, and finished with Gouda cheese from Cresset Farms in Aurora, NY) appear regularly.

"Tastes are changing as evidenced by our wine sales," notes Turback. "Until 1984, we sold more hybrid than *vinifera* wine. Since then, people are ordering more Riesling, Chardonnay and Gewurztraminer. We have seen the same trend in red wines as well, with an overall increase from 8% to 12% of total sales in red wine in the last 18 months. People have changed from Chancellor and Foch to local Cabernet Sauvignon and Pinot Noir."

Turback's Cabernet Sauvignon offerings include: 1983 Casa Larga Vineyards, 1982 Four Chimneys Farm Winery, 1980 Vinifera Wine Cellars, 1980 Hargrave Vineyard, and Lakeshore Winery NV. Pinot Noirs include: 1980 Casa Larga Vineyards, 1980 Vinifera Wine Cellars, 1982 McGregor Vineyard, and 1982 Lenz Vineyards.

"For anyone who would like to attempt the same thing we have, I would say that personal relations with the wineries is most important. The restaurant and the wineries are both small businesses. If wineries believe in you and what you are trying to do, they will give you the support needed to achieve success. Without our good relationships and confidence in each other, this project would never work."

Méthode Champenoise: Juice Treatments

Bruce Zoecklein, Enologist—Department of Horticulture
Virginia Polytechnical Institute, Blacksburg, Virginia

"She's no mistress of mine—that drinks not her wine
Or frowns at my friend's drinking notions;
If my heart thou wouldst gain,
Drink thy flask of Champagne;
'Twill serve thee for point and love-portions."
From Sir George Etherage's comedy—*She Would if She Could*—1668.

A recent *PW* survey showed some significant variations in the pressing systems utilized by methode champenoise producers. Both phenols and nonsoluble solids extracted during *pressage* are important production parameters affected by the particular pressing system and its utilization.

Table I

%TNSS	*Total Phenol G.A.E.mg/l*
1	*250*
3	*500*
13	*1000*

Table I shows the relationship between the nonsoluble solid content of a white juice and the total phenols expressed as gallic acid equivalence.

Phenols in wines are responsible for red wine color, furnish astringency and bitterness, furnish odorous compounds, serve as oxygen reservoirs, and are a source of browning substrates. It seems, therefore, likely that the management of the nonsoluble solids of the juice during fermentation and the phenol content would play an important role in M.C. palatability and style.

It is known, for example, that the lower the nonsoluble solids content and the cooler the fermentation, the greater is the production and retention of fatty acid esters (Williams, et al. 1978). These compounds are responsible in part for the fruity, floral, aromatic nose found in wines produced under such conditions.

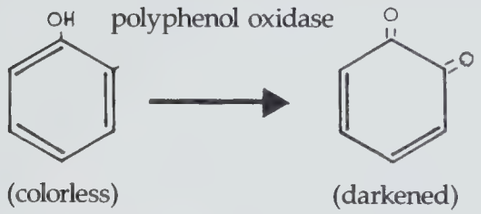
In the *PW* survey, several M.C. producers utilize horizontal ram-type presses. Such presses often contain 4 or more rings supported by stainless steel chains which run the length of the press cage. Several sparkling wine makers inform me that they remove these rings and chain when employing such presses for M.C. It is believed that these contribute to higher solids resulting from friction on the marc.

Popularity of pneumatic presses stems from this lack of friction, ability to gently press, and efficiency, among other factors as discussed in *PW*, Vol. VI, No. 3.

Following pressing, juice fractions are usually sulfited and clarified prior to primary fermentation. The quantity of sulfur dioxide used is generally based upon the cultivar, the juice temperature, the particular juice fraction (i.e. pH and phenol content) condition of the fruit, the yeast used for the primary fermentation, and stylistic considerations such as the desire for a malolactic fermentation, etc.

As discussed in the previous issue, there is no consensus regarding optimum SO_2 levels. Indeed, in the *PW* survey, a range of 20-85 mg/l was noted. Only one producer revealed the complete absence of sulfur dioxide. This may not be surprising in light of an observation reported by Peynaud (1984) in which must consumed on the average 2 mg/l O_2/minute. A wine produced from the same variety and held under the same conditions required 24 hours to adsorb that same quantity of O_2.

Most M.C. producers use care to deliver intact fruit to the press. The desire to avoid premature berry breakage stems from concern of both phenol extraction and oxidase activation.



Enzymatic Oxidation

Grapes degradated with *Botrytis cinerea* or other molds present special considerations for the methode champenoise producer. Oxidation of botrytized fruit is the result of two enzymatic systems—polyphenol oxidase always present in the grape and laccase from the mold. Laccase is more soluble (Peynaud, 1984). Sulfur dioxide levels are generally elevated when botrytis is present.

Some M.C. producers prefer to utilize protective techniques that prevent the degradative effects of oxidation by reducing the oxidizable substrates—the polyphenols rather than simply elevate the SO_2. This scheme may be more common when mold is present on the fruit. The adsorption of phenols by polyvinylpolypurolididon (Polyclar AT) as well as protein fining

WST COMPENDA
BOTTOM-FILL BOTTLE FILLER
THERE IS VIRTUALLY NO OXYGEN PICK UP with this true gravity, bottom-fill filler from Germany that fills from 20 to 500 bpm! A nitrogen blanket is laid down over the wine in the filler bowl, and bottle air is vented to the atmosphere as wine fills the bottle from the bottom up, via a long SS filler tube.
Our WST Compenda has positive and repeatable level control and is available as a filler only or filler/closure monobloc with natural cork, screw cap, or crown cap design. Easy, quick changeover is effected from 375ml to 4 liter bottles. Full CIP sanitation.
Call today for further information.
PROCESS ENGINEERS, INC.
(415) 782-5122
3329 Baumberg Avenue • Hayward, CA 94545

agents may aid in color stability, help control loss of freshness, and help precipitate nonsoluble solids from juice prior to primary fermentation.

Juice extracted from moldy grapes often contains a mucilage which can act as a colloidal protector inhibiting natural precipitation of juice solids. In the case of *Botrytis cinerea*, this consists of a glucose mixture of a high M.W. dextran combined with other polysaccharides of low M.W. (20,000) containing rhamnose galaetose, glucose, and mannose. Under these circumstances, juice fining may be required to aid clarification. Juice fining with bentonite often aids clarification and may reduce enzymatic oxidation by binding polyphenol oxidase.

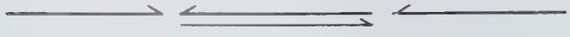
In the *PW* survey, we found that the primary or first press-cut fractions' nonsoluble solids content is lowered on an average to ½ to 1%. There appears to be no consensus on the optimum method by which this reduction occurs. Centrification of the juice greatly reduces the enzyme activity in table wine production due to the fact that most of the enzyme is located in or on the skins. Presumably a similar phenomenon would occur in traditional M.C. production.

More research on the relationship between clarification methods and oxidation potential, grape volatiles, etc. would be welcomed. Those with centrification capability often report that centrification is the method of choice. Many use cold settling with or without the aid of fining agents. The low pH and phenol content of the premier cuvee usually allow for rapid precipitation. Various fining agents are utilized according to our survey. Most indicated very sparing utilization of juice fining for either phenol modification or control of solids.

Some sparkling winemakers use bentonite as a juice fining agent, however, with care. Beyond the presumed reduction in body and aroma which has been associated with bentonite additions to wine, there are additional concerns facing the M.C. producer. Bentonite nonselectively removes peptides, proteins, and amino acids which can affect the secondary fermentation rate as well as the size and retention of bubbles in the finished product.

Carbon Dioxide Equilibrium

Free Dissolved Combined



Carbon dioxide in sparkling wines is not only in a free state but also exists in an unstable bound form under pressure (Kylatchk et al. 1979). The bound forms of CO_2 are possibly esterification products and or physically linked CO_2–proteins and peptides (Berti 1980). The relationships between bentonite addition to cuvee and bubble size and retention have been noted for some time (Brusilovskij et al., 1977).

In Europe, it is not uncommon to add bentonite to juice destined for wine production for the purpose of either reducing the nonsoluble solids level, protein stabilization, or both. Schopfer (1981) reports that the addition of 30 g/hl to once-racked juice and fermentation in the presence of bentonite slows down the fermentation, helps prevent sticking, and may aid in protein stabilization of the cuvee.

Fermenting in contact with bentonite is reported to increase both the volatile ester and fusel oil production (Groat et al., 1978). Bentonite may cause poor initial fermentation by pooling the yeast inoculum to the bottom of the fermenter. It is now common to add at least a portion of the inoculum to the top of the fermentation vessel without mixing to avoid precipitation caused by the bentonite.

Determining the quantity of bentonite required in juice fining to potentially achieve protein stability can be estimated by several methods including ammonium sulfate, phosphomolybdic acid (Bentotest), etc. As Ramey noted in *PW*, Vol. VI, No. 1, prefermentation juice fining has several advantages for table wine producers. It can be assumed that these advantages would apply to the M.C. producer as well.

Vos et al., 1979, reported that a low juice nitrogen content during fermentation in contact with bentonite can lead to hydrogen sulfide production. H_2S production has not generally been noted in wines produced in contact with bentonite presumably because of the generally high levels of must nitrogen.

Juices and wines after bentonite treatment are richer in proline, aspartic, and glutamic acid, glycine, alanine, threonine, and serine but poorer in basic, aromatic sulfur containing any hetercylic amino acids. How these changes may affect ultimate methode champenoise palatability is unknown.

In the *PW* survey we found no American producers of methode champenoise using bentonite in primary fermentation for the purpose of protein stabilization. One Australian champagne maker indicated he utilized such a procedure for protein stabilization.

References

Berti, L. 1981. "An overview of the state of the art in producing California sparkling wines." Wine Industry Technical Seminar Proceedings 1981.

Brusilovskij, S.A., Mel'nikov, A.I., Merzhanian, A.A., Sarishvili, N.G. "Proizvodstvo Soveskogo Shampanskogo Nepreyvnym Sposobom" (Production of Soviet Champagne in a Continuous Procedure) Pishch. Promy'shle: Moscow.

Dujiker, H. 1980. *The Wines of the Loire, Alsace, and Champagne.* Crescent Books.

Groat, M., Ough, C.S. 1978. "Effects of insoluble solids added to clarified musts on fermentation rate, wine composition, and wine quality." *Am. J. Enol. Vitic.* 19, 112-119.

Klyatchk, N.A., Schoumilova, L.A., Sareschvilli, N. 1979. "6 on the Nature of CO_2 Fixation in Sparkling Wine" (transl.), Vinodel. Vinograd. SSSR 39(3), 52-53.

Maujean, A., Haye, B., and Bureau, G. 1978. "Etude sur un phenomene de masque observe en champagne." Vigneron Champenois 99, 308-313. Peynaud, E. 1984. *Knowing and Making Wine.* John Wiley and Sons, New York. 391 p.

Schhopfer, J.F. 1981. "Oenologie technologie de preparation des vins de base de qualite." Simposio internazionale vin spumanti. Instituto de Enolgia, Piacenza.

Vos, P.J.A., Gray, R.S. 1979. "The origin and control of Hydrogen Sulfide during fermentation of grape must." *Am. J. Enol. Vitic.* 30: 187-197.

Williams, J.T., Ough, C.S., Berg, H.W. 1978. "White wine composition and quality as influenced by methods of must clarification." 29:92-96.

ESTATE BOTTLING
Portable Wine Bottling At Your Winery
Owner Operated Quality Service Sterile Bottling
3-Label Capacity 1500 cs/Day Generator on Truck
Contact: P.O. Box 1743 Pleasanton, CA 94566
(415) 484-3062 or 376-0215

PRACTICAL WINERY 3-Ring Binders Make Practical Christmas Gifts
see page 54
PRACTICAL WINERY Christmas Gift Subscription Offer
see page 55

The Quintessence of Quality

One Century of Singular Tradition in Bottle Capsules

Since the 19th century, European wineries have chosen Ramondin capsules to top their fine wines.

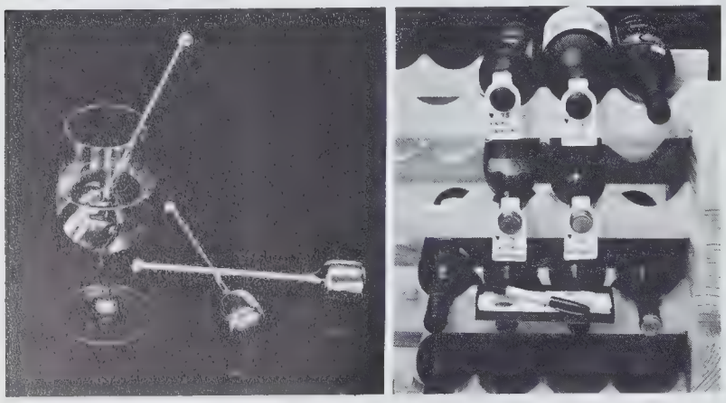
Custom capsules available direct from the manufacturer are a specialty and our large production capacity allows us to offer one of the shortest lead times in the industry. Now, Ramondin tin-lead and poly-laminated capsules are available in a wide selection of stock colors from our Napa Valley warehouse, ready for immediate U.S. shipment. Join our extensive and growing list of satisfied U.S. customers and discover Ramondin quality for yourself.

RAMONDIN

RAMONDIN USA INC. · 6920 Yount Street · Yountville, CA. 94599
(707) 944-CAPS, 944-2277

HOLIDAY "STOCKING STUFFER" GUIDE

'Tis the season to be jolly, hang a bit of mistletoe, and bring out the mulling spices for that warm holiday feeling (see recipes below). *PRACTICAL WINERY* wishes wine lovers everywhere a relaxed and happy holiday season, and offers the following guide to make your last-minute gift-giving simple, yet meaningful. When contacting any of the suppliers listed, please mention having seen their name in *PW*.



Ice Sticks (l) and Bottle Tags (r) from America's Wineland Crafts.

AMERICA'S WINELAND CRAFTS

San Francisco, CA

Wine Memoir—Tasting notes logbook made of fine Italian calfskin. With wine region maps and vintage charts. 80 note pages (refills available). $34.50 + $3.50 postage.

Cork Display Pins—Distinctive display pins identify decanted wines. Miniature tastevins at each end fasten to cork. Imported from France. Gift boxed. $17.50 + $3.00 postage.

Champagne Key—Opens champagne safely, with style. Stainless steel spikes grip cork and allow easy removal. Solid brass $59.50 + $3.50 postage, stainless steel $39.50 + $3.50 postage, gold plate $99.50 + $3.50.

Ice Sticks—Keep wine chilled without diluting it. Silver-plated, water-filled cubes with swizzle stick handle. Keep frozen until ready to use. Set of 2 $34.50 + $3.00 postage.

Liftmaster—Waiter's corkscrew—improved. Streamlined case unfolds to become both capsule knife and boot. Pocket clip for easy carrying. 5-turn screw pulls even long corks. Silver finish $14.50 + $2.50 postage; gold-plated with presentation box, $21.50 + $2.50 postage.

Bottle Tags—Sturdy plastic tags slip over bottle neck for quick and easy identification. Reusable tags with erasable marking pen. Box of 48 $10.50 + $2.00 postage, Box of 500 $74.50 + $2.50 postage, Box of 1,000 $119.50 + $4.00 postage.

Inquiries: America's Wineland Crafts, 680 Beach St. Suite 311-E, San Francisco, CA 94109. Phone: (415) 474-9000.

ANDERSON MARKETING, INC.

Sacramento, CA

Vintage Cork Puller Model A801—The original two-pronged cork puller with a plastic cover sheath that can be imprinted with your message and is available in black, blue, white and burgundy.

Vintage Champagne Stopper Model A812—Chrome-plated stopper reseals champagne and sparking wine bottles. Available imprinted with your message on the cap.

Inquiries and pricing information: Anderson Marketing, Inc., PO Box 7057, Sacramento, CA 95827. Phone: (916) 361-3682.

GREAT FERMENTATIONS

San Rafael & Santa Rosa, CA

Vinometer—This pocket-sized instrument, resembling a glass thermometer with a funnel top, gives you an instant reading of alcohol content of dry wines, $5.95.

Liquid Oak—Instant oak flavor can be added to your wine by the drop with this pure extract of natural oak. 50ml treats up to 20 gallons of white wines. We take it to wine tasting parties in a dropper bottle. 50ml is $3.95

Brandy Pipes (l) from International Wine Accessories. Wine Breather (r) from The Wine Enthusiast.

Still stuck for stocking stuffers? Try . . .

The Grape-growing & Winemaking Review

PRACTICAL WINERY

the practical solution.

See page 55.

Knowing and Making Wine—by Emile Peynaud. New winemaking book translated from French—the continental approach to winemaking, $34.95.

Modern Winemaking—by Phil Jackisch. A well-respected author who has written numerous articles and bulletins for the American Wine Society, $25.00.

Inquiries to: Great Fermentations, 87 Larkspur, San Rafael, CA 94901. Phone: (415) 459-2520. Or 840 Piner Road#14, Santa Rosa, CA 95401. Phone (707) 544-2520.

INTERNATIONAL WINE ACCESSORIES
Dallas, TX

Brandy Pipes—Hand-blown, full leaded crystal brandy pipes imported from Germany are available individually or in sets of two and four. #BP75-001, individual pipe, $27.95 + $2.50 postage.

Inquiries, including wholesale inquiries: International Wine Accessories, 11020 Audelia Road, Suite B-113, Dallas, Texas 75242. Phone: (214) 691-8470 and (214) 349-6097.

OAK BARREL WINECRAFT
Berkeley, CA

Refractometer—Atago sugar refractometer, type N-1, O-32% with carrying case, $125.

Wine Thief—Deluxe pyrex glass, 16 inches long, $19.50.

Corker—Two-levered, imported from Italy, $14.50.

Inquiries: Oak Barrel Winecraft, 1201 University Ave., Berkeley, CA 94702-1799. Phone: (415) 849-0400.

VINTAGE CREATIONS
La Jolla, CA

Wine Label Art T-Shirts—Classic T and China T-Shirts featuring the distinctive label designs from six California premium wineries: Quady Winery, Ravenswood, Robert Pecota, Folie A Deux, Sanford, and Domaine Laurier, all 100% cotton. Available in S, M, L and XL. Classic T, $12.50. China T, $16.00.

Inquiries (retail or wholesale): Vintage Creations, PO Box 12405, La Jolla, CA 92037. Phone: (619) 942-0817.

THE WINE APPRECIATION GUILD
San Francisco, CA

Pocket Encyclopedia of California Wine and Other Western States—A convenient reference book that fits in the vest pocket. It provides answers to most questions about western states' wines, wineries, grape varieties and wine terms. Includes maps. $5.95 + $2.00 postage.

Inquiries: The Wine Appreciation Guild, 155 Connecticut Street, CA 94107. Phone: In CA, (800) 231-WINE. Others, (800) 242-9462.

THE WINE ENTHUSIAST
Pleasantville, NY

Case of Chocolate Wine Bottles—Twelve miniature chocolate wine bottles filled with cream. Imported from Germany. Gift boxed, each 2 inches tall. #3W510, $9.95 + $2.50 postage.

Wine Breather—Compresses one hour of breathing time into one minute. Micro-inductive circuitry creates a surface area equal to 120 carafes without disturbing sediment. Satin black finish. Gift boxed. #3W509, $59.95 + $3.50 postage.

Tastevin De Bourgogne—The traditional style, with multifaceted bowl for examining the color and clarity of wine. Silverplate with 38" neck chain. Gift boxed. #2W463, $24.50 + $2.00 postage.

Drip-Stopper—Prevents spilling wine when serving. Silverplate with bottle resealer. Gift boxed. #2W312, $14.95 + $2.00 postage.

Cork Retriever—A tool for removing a cork that has been pushed into a wine bottle. #2W289, $5.95 + $1.95 postage.

Digital Wine Thermometer—This liquid crystal thermometer attaches to any regular-size bottle and within seconds registers actual degrees. Suggested serving temperatures for major wine types are printed right on the thermometer. Gift boxed. #4W758, $19.50 + $1.95 postage.

Inquiries: The Wine Enthusiast, Inc., 70 Memorial Plaza, PO Box 39, Pleasantville, NY 10570. Phone: (914) 747-3170.

Wine Label Art T-Shirts from Vintage Creations.

Holiday Recipes

Mulled Red Wine

2 bottles (750ml) Pinot Noir
4 cups water
2 cups granulated sugar
8 sticks cinnamon
8 whole cloves
4 lemons,thinly sliced

Boil the water with sugar, cinnamon, and cloves for 5 minutes. Add the lemons, cover, and let stand for 10 minutes. Add the wine and heat gradually, but *do not* allow to boil. Pour into serving pitcher, then into wine glasses. Serve hot. (A silver spoon placed in each glass will prevent cracking). Serves 8.

Glögg

1-⅔ cups Cognac
1 bottle (750ml) Cabernet Sauvignon
1 bottle (750ml) port
18 whole cloves
2 cinnamon sticks
1 cup sugar
1 cup golden raisins
1 cup blanched slivered almonds

Combine all ingredients in a large pot. Heat over medium heat, stirring frequently until vapor starts to rise. Ignite and continue stirring until sugar is dissolved. Do *not* boil. Regulate heat and continue stirring 10 minutes. Ladle into punch cups, spooning some raisins and almonds into each. Serves 6.

WATER SUPPLY AND WASTEWATER
ENGINEERING FOR WINERIES

DAVID R. STORM, Ph.D., P.E.

STORM ENGINEERING

(916) 795-3506
15 MAIN ST., P.O. BOX 681, WINTERS, CA 95694

Northern California Vines Threatened by Phylloxera?

Mike Marcley

Is there a new form of phylloxera that is killing vines on AXR 1 rootstock? Vineyardists in the Rutherford area of California's Napa Valley think so. They have seen vines on AXR 1 rootstock dying.

Experts at UC Davis who have seen phylloxera in much larger numbers than usual on AXR 1 rootstock, and are studying these insects in the laboratory, believe it's possible a new biotype of phylloxera is killing these vines.

Paul Vossen, Sonoma County Farm Advisor and acting viticulturist, believes it might also be a case of mistaken identity and the 'common' phylloxera is killing vines that aren't on AXR 1 at all.

The devastating effect of phylloxera to grapevines has been known for nearly 100 years. By virtually destroying European viticulture as well as the then recently established Napa and Sonoma Valley *vinifera* vineyards, this insect became the most serious pest of *vinifera* vines.

Preparing roots for bioassay studies in Granett's UC Davis laboratory.

Grafting or budding wood from these vines onto any of several phylloxera-resistant rootstocks (AXR 1, St. George, SO 4, 110 R, and 5 BB, for example) enabled vineyardists to grow vines in phylloxera-infested areas because the insect either could not feed on or cause damage to these resistant rootstocks. Thus, viticulture was re-established in these phylloxera-devastated areas.

Phylloxera was no longer a threat to northern California viticulture because there were many resistant rootstocks and the technology of establishing *vinifera* vines on them soon became well-developed. This was a comforting scenario until recently, when patches of dead vines began appearing in vineyards which had been established, according to the grower, on AXR 1 (a phylloxera-resistant rootstock).

Experts were baffled. The cause couldn't be phylloxera because vines were on resistant rootstocks, so they examined all other possible causes before noticing that phylloxera was indeed present in unusually large numbers on roots of affected vines.

Phylloxera has always been able to survive (feed and reproduce in low numbers) on AXR 1 roots with no apparent damage to vines. This phylloxera tolerance, ease of budding and grafting, and its far superior productive capacity have established it as the major rootstock used in California. (It has been rejected in Europe due to insufficient phylloxera resistance and its susceptibility to nematodes.) How could phylloxera be killing vines growing on this rootstock?

Had the insect mutated to form a new biotype, or had bacteria associated with its feeding and digestion (symbionts) mutated and provided the insect with an ability to feed more profusely on these roots? Had the rootstock's limited resistance to phylloxera finally broken down? Had poor vine vigor due to *Eutypa*, leafroll and corky bark virus, found associated with phylloxerated vines, enabled phylloxera to feed on roots? Or did a change in the environment make it possible for the insect to feed and reproduce in large numbers on AXR 1 and potentially wipe out all vineyards established on this rootstock?

Dr. Jeffrey Granett, associate professor of entomology at UC Davis, explains that there is variation in the rootstock selection AXR 1. He relates that, according to Austin Goheen, the origin of this variation might well date back to seedling selections made from the original Aramon x *rupestris* cross. "It's possible that the AXR 1 used in European rootstock trials is different from the California AXR 1, which has generally been resistant to phylloxera," adds Granett.

Granett began investigating the possibility that a new biotype of phylloxera had evolved and was causing the problem. (New phylloxera biotypes have been reported from other parts of the world, including several European locations, USSR, South Africa, eastern USA and Canada.)

To avoid spreading this potentially new phylloxera biotype, Granett carefully collected infested roots from affected vines and took them to his laboratory. "We normally use a 10x hand lens to verify that phylloxera are on the roots before we collect them," Granett explained (fig. 1). "In some cases there are so many insects present (an obvious yellow appearance to the roots) that we don't need the hand lens. Our bioassay studies compare the development of phylloxera collected from AXR 1 roots of dying vines to development of phylloxera collected from own-rooted *vinifera* vines.

"In both cases, insect eggs are put onto new 4cm lengths of surface-sterilized AXR 1 roots in Petri dishes. We've found that phylloxera collected from roots of dying vines on AXR 1 (the alleged new strain of phylloxera-type B) lays more eggs and therefore increases numbers faster (35–40 day generation time–egg to adult to egg) than the common (type A) phylloxera strain (50–55 day generation time)."

The roots that Granett has used for the bulk of his studies are AxR 1 collected from the UC Davis variety collection plot. He has also used roots of 5 BB, S0 4, 110 R, 1202, and St. George from the same plot in his bioassay studies with type B phylloxera.

"I don't think we know enough about the insect's biology to claim that we are dealing with a new strain of phylloxera. Other factors may be responsible for this ability to kill AXR 1 roots."

Fortunately, rootstocks resistant to this type B phylloxera are available (in very limited supply) and some nurserymen are already establishing source rows of these vines. Dr. Austin Goheen, professor of plant pathology at UC Davis, claims that Dr. Lloyd Lider and Dr. Harold Olmo, professors in the Viticulture and Enology Department at UC Davis, have been evaluating several rootstocks for immunity to nematode feeding and thus fan leaf virus since 1960. Just one feeding puncture of a root by *Xiphinema index* nematode could potentially transmit fan leaf virus to that vine.

039-16, a cross between *Vitis rotundifolia* and an obscure male-sterile, table grape variety (*Vitis vinifera*) and 043-43 (same parentage), both developed by Professor Olmo and a graduate student, have proved to be immune to *Xiphinema index* feeding. They have been in the research program since the 1960s and were rejected due to difficulty in propagation. They have been examined again recently because of their phylloxera resistance.

039-16 is immune to both phylloxera and *Xiphinema index* feeding, but 043-43 is only resistant to phylloxera and *Xiphinema index*. "I wouldn't use this one in a phylloxera hot spot," says Goheen.

Both have been increased by mist propagation in a UC Davis greenhouse and 039-16 was supplied to 15 selected nurserymen in 1984 for establishing source rows. Cuttings of this phylloxera-immune rootstock would be available to growers in 1986, so it is unlikely that any vineyards will be wiped out by this 'new' phylloxera.

"We're doing tests to determine the best way to propagate this rootstock," says Goheen, "since any *rotundifolia* is very difficult to graft (0–30% take with bench-grafting). It appears that field-budding is the best method for establishing vineyards on this rootstock."

Maybe the 'new' phylloxera has done the industry a favor by emphasizing the need of a new rootstock and therefore speeding the release of 039-16. Granett is including these rootstocks in field trials to determine resistance in phylloxera-infested soils in vineyard conditions. Several other rootstocks with no *vinifera* parentage are also logical substitutes for AXR 1, including SO 4, 5 BB, and 110 R. Trials in Sonoma County in 1973-1979 indicate good productive capacity on these stocks, according to Vossen.

"The trials with AXR 1, St. George, 5 BB, 110 R and SO 4 were planted in the vineyard in 1984, adjacent to affected vines, where type B phylloxera was found," adds Granett. "We also planted 039-16 and 043-43 in May 1985 and will have reliable data on their field resistance to type B phylloxera by May 1986.

"In October 1985 we checked these vines to be sure they were infested with phylloxera. In May 1986 we'll check them again to see if the type B phylloxera has survived the winter on these rootstocks. By October 1986, we'll be able to determine whether the insect was able to re-establish itself on these vines. We'll then be able to assess the rootstocks for field resistance. Similarly, in October 1985, we assessed AXR 1, St. George, SO 4, and 1202 for their resistance to type B phylloxera. AXR 1 vines were half the size of the others which were all similar in size. The vines were assessed by five people and rated on a 0–9 scale."

Vossen found in August 1985 that the Sonoma County vineyard where type B phylloxera was identified was not all on AXR 1 rootstock. In fact, many affected vines were apparently on another rootstock. He claims to have seen rootstock suckers that didn't appear to be AXR 1 and were subsequently

Need field-grown benchgrafts and rootings for replants and new plantings?

Most graft combinations still available including:
Chardonnay, Chenin Blanc, Sauvignon Blanc, Muscat Blanc, Semillon, White Riesling, Cabernet Sauvignon, Zinfandel, Petite Sirah, even Cabernet Franc, Meunier and Symphony. Also, others.

Rootstocks include:
AXR #1, St. George 15, SO4, 5BB, 3309, 110R, Harmony and Freedom

NOW TAKING CUSTOM ORDERS FOR 1986 • SHIPMENT NATIONWIDE

SONOMA GRAPEVINES, INC.

1919 Dennis Lane • Santa Rosa, CA 95401 • (707) 542-5510

WE CAN'T PREVENT WINTER, JUST ITS STING.

You know how wind machines protect.

Call to see why ours do it best.

ORCHARD RITE / TROPIC BREEZE

1720 H Street • Fresno, CA 93721 • (209) 237-3222

identified by Professor Pierre Galet, the French ampelographer, as Couderc 93-5 (XX).

"I just wanted to be sure that the suspect vineyard was actually on AXR 1," says Vossen. "It's possible that we're dealing with the same phylloxera we've always had. It's just attacking vines on a susceptible rootstock, not AXR 1.

"The grower assured me that his vines were on AXR 1, but we walked through the vineyard inspecting vines for rootstock suckers anyway. Very few rootstocks were suckering but we did find one vine that was not AXR 1.

Vossen claims that there was some confusion as to proper vine identity when much of the recent vineyard planting took place in the 1960s and early 1970s. It's possible that many vineyards are planted to a mixture of AXR 1 and other non-resistant stocks.

"There are several known cases of 'certified' AXR 1 vineyards showing up with a percentage of stray (non-resistant) rootstock," reports Vossen. "You can imagine the confusion in the rush to get rootstock wood in the early planting days. This is part of the reason that the Foundation Plant Material Service and new certification programs were established in the late 1960s in the first place."

If Vossen is correct that some cases of type B phylloxera are actually type A affecting vines on susceptible rootstocks, there may be little to worry about. But a definite correlation of dying vines with rootstocks that aren't AXR 1 has not been established. There are dying vines on rootstocks identified as AXR 1 that are next to some on XX rootstock in the two Rutherford vineyards where the type B phylloxera has been observed.

Similarly, it isn't clear why these vineyards, that were planted years ago in phylloxera-infested areas using AXR 1 or some other (possibly susceptible) rootstock, are only recently being affected by phylloxera.

"There is about a 5-10 year lag time between the time a clean vineyard is planted and the appearance of phylloxera and another 3-6 years until the vines die," claims Vossen. The affected vineyard and adjacent ones in Rutherford were first planted to vines in the early 1970s. That would explain why dying vines allegedly on AXR 1 haven't been reported earlier."

Granett is also working on an electrophoresis technique that has been used at Ohio Agricultural Research & Development at Wooster, Ohio, to separate different biotypes of phylloxera. The biotypes are biologically different allegedly because they have different enzyme systems. Differences between amino acids (and their respective charges) in the enzymes enables the enzymes to be separated by electrophoresis. Insects are ground up in buffer and then subjected to the treatment which separates the different enzymes. In this way it's possible to determine whether the insects used in the test were different or not.

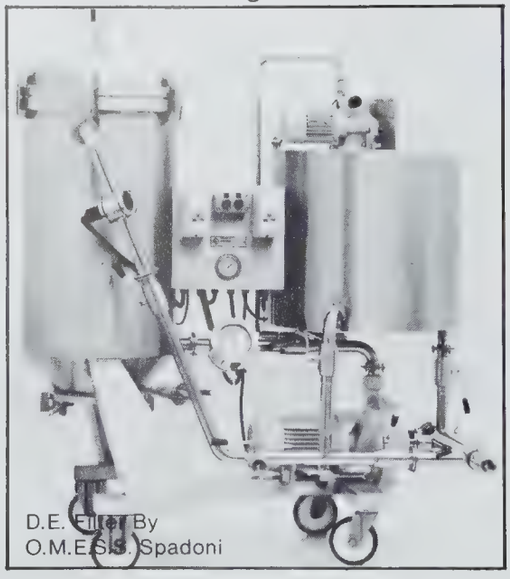
If all the tests show that there is a new biotype of phylloxera that can kill AXR 1, then replanting programs of a few acres each year with the appropriate rootstocks would be necessary. The new rootstock, 039-16, may be useful, but its effect on graft compatibility, vine vigor, yield and fruit quality still have to be determined. Other rootstocks such as SO 4, 5 BB, 1202 and 110 R have already been tested in such trials and appear very promising, but are not immune to either phylloxera or nematodes.

If it were a case of mistaken identity and AXR 1 is still resistant to phylloxera in California, some replanting in areas where vines are on susceptible rootstocks will then be necessary. In either case, there is no major threat to the northern California wine industry.

CRIVELLER COMPANY

supplier for

Small & Large Wineries



D.E. Filter By
O.M.E.S.I.S. Spadoni

- grape processing equip.
- filtration equipment
- equipment for treatment of juices and wines
- stainless steel tank accessories
- centrifugal & piston pumps
- chemical & filter sheets
- yeasts & enzymes
- oenocyanine & other specialties

CONTACT CRIVELLER COMPANY
In Canada: 6863 Lundy's Lane, Niagara Falls
In U.S.A.: P.O. Box 162, Lewiston, N.Y. 14092
Ph. (416) 357-2930/358-5202 Telex 061-5446

THE WINE INVESTOR

The most authoritative and informative newsletter in the world of wine is available in two editions:

THE WINE INVESTOR / EXECUTIVE EDITION is published twice a month for producers, shippers, importers, growers, distributors, wholesalers, institutional and private investors, bankers, accountants, lawyers, business writers, equipment manufacturers, and others whose financial interest in wine requires up-to-the-minute coverage of the industry. It features in-depth stories on marketing, legal matters, and industry trends.

THE WINE INVESTOR / BUYER'S GUIDE is published monthly for retailers, restaurateurs, and consumers. It surveys wine markets from the buyer's point-of-view and recommends wines for immediate consumption or profitable inventorying.

The 1985 SPARKLING WINES REPORT will be available very soon! It presents the most in-depth analysis of case-sales of imports and American brands; price considerations, and consumer-segments.

TO ORDER YOUR SUBSCRIPTION:

Executive Edition (24 issues) and Buyer's Guide (12 issues) $225/year
Executive Edition (24 issues/year) only, $195
Buyer's Guide (12 issues/year) only, $60
1985 Sparkling Wines Report, $100
Please send funds and business card to:

THE WINE INVESTOR (Dept. WIPW)
6515 Sunset Blvd., Los Angeles, CA 90028

Proprietary Wine Survey

PW continues its survey of proprietary wines on a regular basis. The survey examines ways in which wineries are successfully marketing proprietary wines and includes descriptions of the wines.

Buena Vista Winery
Sonoma, California

Buena Vista Winery produces three proprietary wines: Spiceling, a combination of 'spice'—the translation of the German 'Gewurz'—and 'ling' from Riesling; Pinot Jolie, from Pinot noir and the French word 'jolie' for pretty, because of the wine's color and taste; and Steelhead Run, named for a creek in the Carneros district where Steelhead fish run and for its pale salmon color. Pinot Jolie is an early-harvest Pinot Noir; Steelhead Run is a blanc de Pinot Noir. Both wines have residual sugar between 1.8–2.0 g/100ml and about 10% alcohol.

Spiceling production began in 1981. Pinot Jolie was introduced in 1983; 1984 production was 6,000 cases. Steelhead Run was introduced in 1984 with 1,200 cases. The wines are available in the tasting room, retail outlets, and restaurants, where they are listed as 'other reds', 'other whites', 'blush', or 'California Originals'. All three wines have a suggested retail price of $5.50. Buena Vista has experienced success with twin-pack promotions of Spiceling/Pinot Jolie and Spiceling/Steelhead Run as 'California Originals'.

The three proprietary wines are offered in addition to varietal bottlings of Cabernet Sauvignon, Chardonnay, Fumé Blanc, Gamay Beaujolais, Gewurztraminer, Johannisberg Riesling, and Zinfandel.

Spiceling
Alcohol: 10.5–11.5%
Total Acidity: 0.75–0.86 g/100ml
Residual Sugar: 1.1–1.2 g/100ml
Grapes: Gewurztraminer, Johannisberg Riesling
Quantity Produced: 1984–20,000 cases

Cedar Hill Wine Company
Cleveland Heights, Ohio

Dr. Tom Wykoff is the owner of Au Provence Restaurant and Cedar Hill Wine Company, which bottles wine under the Château Lagniappe label. Château Lagniappe offers seven proprietary wines, the names of which honor Cleveland's great institutions and landmarks.

The wines (and the grapes from which they are produced) are Art Museum White (Seyval blanc, Vidal blanc), Blossom White (Vidal blanc, Cayuga), Cleveland's North Coast White (Seyval blanc, Vidal blanc—riper grapes with more wood contact than Art Museum White), Modern Dance Rosé (Steuben, Vidal blanc, Chambourcin), Orchestra Red (Foch, Chancellor), and Terminal Red (Chambourcin, Léon Millot, Chancellor). Recent blend changes in the reds include lower acidity and greater use of Chambourcin. Among whites, more proprietary wines with slight residual sugar (about 1 g/100ml) are being produced.

90% of the total 2,000-annual case production of proprietary wines is sold in the tasting room and restaurant at a suggested retail price of $5.99. A small portion is sold in retail outlets and other restaurants, categorized as 'Ohio wines'. Château Lagniappe wines are poured by the glass at Au Provence Restaurant, among others.

A small marketing frustration with Terminal Red (named for the Terminal office building in Cleveland) has involved literal interpretation of the name. However, this interpretation has also been a boost, depending on the establishment.

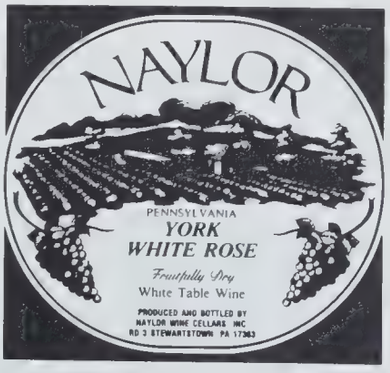
Terminal Red
Alcohol: 11.5–12.5%
Total Acidity: 0.65 g/100ml
Residual Sugar: 0.20 g/100ml
Quantity Produced: 200 cases

Naylor Wine Cellars
York, Pennsylvania

In addition to 18 varietal wines and several proprietary wines made from fruit, Naylor produces six proprietary wines made from a variety of hybrid grapes. York White Rose (Seyval, Vidal, Cayuga, Couderc), Lafayette (Landal noir, Chambourcin, Chelois), and First Capital (Chambourcin, Chelois, Foch, Baco noir, Chancellor) are all named for aspects of York's heritage. Vidalweiss (Vidal, Vidal juice) and Rhinelander (Seyval, Dutchess, Delaware, Vidal) are German-sounding names to go with German-style wines. Rosé O'DeChaunac (DeChaunac, Vidal juice) is another way of saying DeChaunac Rosé.

Vidalweiss has an annual production of 1,000 cases; 2,500 cases each are produced each year of Rhinelander, Rosé O'DeChaunac, and York White Rose, in addition to small quantities of First Capital and Lafayette.

These wines are available in the tasting room (where they total 59% of sales), in retail outlets (which are winery-controlled and sell only Naylor wine), and in restaurants, where they are listed under 'white', 'red', or 'rosé', or as a separate insert. Suggested retail prices range from $3.85 to $5.35. Vidalweiss is the only one of the group to carry a descriptive side panel. The only marketing frustration reported is that York White Rose is sometimes confused as a white rosé.



York White Rose
Alcohol: 11.5%
Total Acidity: 0.72 g/100ml
Residual Sugar: 0.80 g/100ml
Suggested Retail Price: $4.10

PW reviewed the following wineries in the previous issue:
Leeward Winery
Mountain House Winery
Pat Paulsen Vineyards
Trefethen Vineyards

PW will continue this survey in future issues. Wineries are invited to submit appropriate information and labels for inclusion.

Services of Vendors

Agri-Fab Industries/Vineyard Supplies, PO Box 536, Lodi, CA 95241 (209) 334-3560. *B4, V2*

Ahlstrom Machinery Inc., PO Box 74, Glen Falls, NY 12801 (518) 798-9541. *P3, W3*

Ashbrook-Simon-Hartley, PO Box 16327, Houston, TX 77222 (713) 449-0322. *P1*

Barrel Builders, 1085 Lodi Lane, St. Helena, CA 94574 (707) 963-7914. *B2, B3, B6*

A. Bellagio Wood Tank Co., Inc., 12786 Old Redwood Hwy, Healdsburg, CA 95448 (707) 433-4605. *Wood Tanks*

Blake Printery, 2222 Beebee St., San Luis Obispo, CA 93401 (805) 543-6843. *L3*

Boswell Company, 305 San Anselmo Ave #313, San Anselmo, CA 94960 (415) 457-3955. *B2, B3*

Calpac Container Co., 33359 Central Ave., Union City, CA 94587 (415) 471-5091. *B8*

Cellulo Co., Finer Filter Products Div., 124 M St., Fresno, CA 93721 (209) 485-2692; Cranford, NJ (201) 272-9400. *D2, E2, F2, F3, F5, L1, T2, Y1*

Chateau Bottlers, PO Box 2274, Napa, CA 94558 (707) 253-1254; 26 Woodland Ave., San Rafael, CA 94901 (415) 454-2355. *M2*

Cherokee Tank Lines, 5463 Cherokee Rd, Stockton, CA 95205 (209) 931-3573. *T5*

Cherry-Burrell Corp., 2400 6th St.SW, Cedar Rapids, IA 52406 (800) 553-8867. *F6, P3, T1, V1*

Joseph W. Ciatti Co., Inc., 42 Miller Ave., Mill Valley, CA 94941 (415) 388-8301. *B12*

The Compleat Winemaker, 1219 Main St., St. Helena, CA 94574 (707) 963-9681. *B10, C2, C8, D1, F2, F6, H2, L4, L6, P1, P3, S1, S3, S4, T2, T4, V1*

Criveller Co., 6863 Lundy's Lane, Niagara Falls, ON., L2G 1V7 (416)357-2930; PO Box 162, Lewiston, NY 14092. *B10, E2, F2, F3, P3, Y1*

Custom Cooperage, 1194 Maple Lane, Calistoga, CA 94515 (707) 942-6902. *B2, B3, B6*

Data Consulting Associates, Inc., 18000 Coleman Valley Rd, Occidental, CA 95465 (707) 874-3067. *C5*

Demptos Glass Co., 849 Jackson St., Napa, CA 94559 (707) 252-7688. *B8, S2*

VILTER OWNERS

Order your compressor parts from PRP and you'll save. Plus you'll receive 12/18 month guaranteed top quality PRP manufactured parts.

Call 415-887-4105
Overnight delivery available

POWER REFRIGERATION PARTS CO.

3466 Arden Road, Hayward, CA 94545

Eagle-Picher Industries, Inc., 580 Walnut St., Cincinnati, OH 45202 (513) 721-7010. *D2*

ENCORE!, 860 So. 19th St., Richmond, CA 94804 (415) 234-5670. B8, B11

Enotech Corp., PO Box 576, Palo Alto, CA 94302 (415) 858-1090. *C8, S2*

ETS (Enological Technical Service), 1204 Church St., St. Helena, CA 94574 (707) 963-4806. L5, M1, Y1

Fischer & Schug Winery Equipment, 940 Dowdell Lane, St. Helena, CA 94574 (707) 963-7000. *B9, B10, B11, C1, C6, C7, C10, D1, F2, F6, H2, L2, L4, L6, P1, P2, P3, T3, T4, U1, V1*

fp Packaging, Inc., 229 Ryan Way, S.San Francisco, CA 94080 (415) 871-5497. B10, C8, C10, D1, F2, L3, L4, P1, S2

Genencor, Inc., 180 Kimball Way, S.San Francisco, CA 94080 (415) 588-3475. E2

Grefco Minerals, 3435 W. Lomita Blvd., Torrance, CA 90509 (213) 517-0700. *D2*

Groskopf Warehouse, PO Box 128, Vineburg, CA 95487 (800) 221-0229 in California; (707) 996-2113 for other areas. *W1*

International Closures & Supplies, San Leandro, CA 94577 (415) 483-3750. *C8, S2*

IRAPP, 195 Dry Creek Rd., Healdsburg, CA 95448 (707) 433-9471. *R1, T3*

ITT Jabsco Corp., 1485 Dale Way, Costa Mesa, CA 92626 (714) 545-8251. *P3*

Jasper Wood Treating, PO Box 11498, Eugene, OR 97440 (503) 342-2300 (out-of-Oregon: 800-547-6063). *T6*

JV Northwest Engineering, 28120 SW Boberg Rd., Wilsonville, OR 97070 (503) 682-2596, *T1*

KLR Machines, Inc., 1925-B Francisco Blvd. East, San Rafael, CA 94901 (415) 456-4774; 47 West Steuben St., Bath, NY 14810 (607) 776-4193. *H1, P1, S2*

Mel Knox/Stone, 1229 Third Ave., San Francisco, CA 94122 (415) 661-3413, (415) 661-1616. *B2, B8, B9, B10, L4*

LaFitte Cork & Capsule,Inc., 1180 Hamilton Ct., Menlo Park, CA 94025 (415) 322-1838. *C8, S2*

Mack-Wayne Closures, PO Box 405, Wayne, NJ 07470 (201) 696-1212; 285 Sutton Pl., Santa Rosa, CA 95401 (707) 584-9711. *C9, S2*

Meyerworld Packaging Machinery, 60 Prescott St., Worcester, MA 01605 (617) 755-3110. *L4*

Miles Laboratories, Inc., Biotech Products Div., PO Box 932, Elkhart, IN 46515 (800) 348-7414. *E2*

Millipore Corp., Bedford, MA 01730 (800) 225-1380. *F2*

Moffett Co. Inc., 6985 Via Del Oro A-5, San Jose, CA 95119 (408) 578-4910. *B2, B9, C8, B10, F2, F3, H1, L6, P1, S2, S4, Y1*

Monitor Manufacturing, PO Drawer AL, Elburn, IL 60119 (312) 365-9403. *T3*

Napa Grape & Equipment Co., 948 Third St., Napa, CA 94559 (707) 252-9555. *B10, C9, D1, F2, F3, H2, L2, P1, P3, S4, W2*

Otto Sick, Corp., PO Box 1101, Palo Alto, CA 94302 (415) 858-1090. *B10*

Pickering Winery Supply, 1300-22nd St., San Francisco, CA 94107 (415) 821-2400. *C2, C3, C4, C5, F2, T2*

Pneumatic Scale Corp., 65 Newport Ave., Quincy, MA 02171 (617) 328-6100. *B10*

Power Refrigeration Co., 3466 Arden Rd., Hayward, CA 94545 (415) 887-4105. *R1*

Price Waterhouse, 555 California St., San Francisco, CA 94104 (415) 393-8840. *F4*

Process Engineers, Inc., 3329 Baumberg Ave., Hayward, CA 94545 (415) 782-5122, (800) 972-0904. *A2, B9, B11, B10, C1, C10, D1, F2, F3, F6, H1, H2, L4, L6, P1, P2, P3, S1, S3, S4, T2, T4, U1, V1, W3*

Prospero's Equipment Corp., 134 Marble Ave., Pleasantville,NY 10570 (914) 769-6252; 840 Piner Rd.#14, Santa Rosa, CA 95401 (707) 523-2900. *B10, F2, L4, L6, P1, S4*

Rain Bird Sales, Inc., 145 N. Grand Ave., Glendora, CA 91740 (818) 963-9311; 1883 Massaro Blvd., Tampa, FA 33519 (813) 621-0624. *I3*

Ramondin USA, 6920 Yount St. Yountville, CA 94599 (707) 944-CAPS. *S2*

Refrigeration Technology, Inc., 5130 Blank Rd., Sebastopol, CA 95472 (707) 823-3222. *R1*

RLS Equipment Co., Inc., PO Box 282, Egg Harbor City, NJ 08215 (609) 965-0074. *B10, C8, C10, F2, F3, F6, H1, H2, L4, L6, P1, P3, S4, T1, U1, V1*

Rohm Tech Inc., 10 E.40th St., New York, NY 10016 (212) 686-6166. *E2*

George M. Schofield Co., PO Box 170, St. Helena, CA 94574 (707) 963-3333. *F4, V3*

Scholle Corp., 19500 Jamboree Blvd., Irvine, CA 92715 (714) 955-1750. *B1*

Scott Laboratories, Inc., PO Box 9167, San Rafael, CA 94912 (415) 457-8460; Pickering, Ontario, Canada (416) 839-9463; Kelwona, British Columbia (604) 769-5393; outside California toll free (800) 821-7254. *B9, B10, B11, C8, D2, E2, F2, F3, F5, H1, L5, L6, M1, P3, S2, S4, T2, W2, Y1*

SEN Machines, Inc., 3095 Kerner Blvd, Suite G, San Rafael, CA 94901 (415) 457-5155. *B9, B10, F2, L4, L6, P1, P3*

Spokane Metal Products, PO Box 3621, Spokane, WA 99220 (1-800) 572-3709 WA, (1-800) 541-3601 outside WA. *T1*

Stefanich, PO Box 77021, San Francisco, CA 94107 (415) 974-5526. *B2*

James M. Stewart, Inc., PO Box 455, Rio Vista, CA 94571 (916) 775-1676. *Cover Crop Seed and Planting*

Storm Engineering, 15 Main St., Winters, CA 95694 (916) 795-3506.*W4*

Sybron Gamlen, 121 S.Maple Ave., S.San Francisco, CA 94080 (415) 873-1750. *T2*

Templock Corp., PO Box 40230, Santa Barbara, CA 93103 (805)684-7676. *B10*

Tonnellerie Francaise, 1401 Tubbs Lane, Calistoga, CA 94515 (707) 942-9301. *B2*

2K Packaging Enterprises, Inc., 7914 SW Nimbus Ave., Beaverton, OR 97005 (503) 641-8990. *B10, B11, C8, C9, C10, D2, E2, F2, F3, F5, H1, L1, L2, L4, L6, S2, S4, Y1*

James Vahl, 1361 St. James Dr., St. Helena, CA 94574 (707) 963-5423 *C5*

Valley Foundry & Machine Works, 2510 S. East Ave., Fresno, CA 93717 (209) 233-6135. *C7, C10, D1, F2, F6, H1, H2, I4, L6, P1, P3, S1, S3, T1, T2, T3, T4, V1, W3*

V & E Consulting & Management, PO Box 422, Oakville, CA 94562 (707) 944-2815. *V3*

VINQUIRY, 16003 Healdsburg Ave., Healdsburg, CA 95448 (707) 433-8869. *C7, L5, M1, W2, Y1*

Water Dynamics, 659 Main St., St. Helena, CA 94574 (707) 963-5822. *I3*

WESTEC, 195 Dry Creek Rd., Healdsburg, CA 95448 (707) 433-8829. *F6, P3, W3*

Brian R. White Co.,Inc., 313 Henry Station Rd., Ukiah, CA 95482 (707) 462-9795. *I3, S1, V2*

Wilden Pump & Engineering Co., 22069 Van Buren St., Colton, CA 92324 (714) 783-0621. *P3*

Wine Appreciation Guild, 155 Connecticut St., San Francisco, CA 94107 (800) 242-9462; in California: (800) 231-WINE. *Wine books and accessories*

Winery Equipment Systems, PO Box 3361, Napa, CA 94558 (707) 257-1103. *P3, W3*

The Wine Lab, 1200 Oak Ave., St. Helena, CA 94574 (707) 963-7903. *L5, M1, W2, Y1*

Index of Vendors Services and Supplies

A1	Adhesives
A2	Architect/Engineer
B1	Bag-in-Box Packaging
B2	Barrel Broker/Cooper
B3	Barrel Bungs
B4	Barrel Pallets (portable)
B5	Barrel Storage Racks (stationary)
B6	Barrel Shaving
B7	Bird Control
B8	Bottles
B9	Bottle Cleaners/Washers
B10	Bottling Equipment
B11	Bottle Washing & Sterilization
B12	Brokers (Wine, Brandy, Alcohol)
C1	Centrifuges
C2	Chemicals
C3	Cleaning Agents
C4	Coatings/Protective Mildewcides/Epoxies
C5	Computer Services
C6	Consultant, Winemaking
C7	Conveying Equipment
C8	Corks (natural)
C9	Corks (plastic)
C10	Crushers-Stemmers
D1	Dejuicers
D2	Diatomaceous Earth
E1	Electrical Installation
E2	Enzymes
F1	Fertilizer
F2	Filter Equipment
F3	Filter Media
F4	Financing/Financial Services
F5	Fining Agents
F6	Fittings, Stainless Steel
G1	Gases (CO_2, Nitrogen, SO_2)
G2	Grape Harvesters (mechanical)
H1	Heat Exchngrs/Cold Stabilization Eqpmt
H2	Hose
I1	Insect Control
I2	Insulation (foam)
I3	Irrigation Equipment
I4	Ion Exchange Equipment
L1	Label Coding Equipment
L2	Label Gluing Equipment
L3	Labels
L4	Labeling Machinery
L5	Laboratories (analysis)
L6	Lees Filter-Press
M1	Malolactic Bacteria
M2	Mobile Bottling Line
N1	Nurseries
P1	Presses
P2	Process Control Systems
P3	Pumps
R1	Refrigeration/Cooling
S1	Sanitation Equipment
S2	Secondary Closures
S3	Sparging Equipment
S4	Sparkling Wine Eqpmt
T1	Tanks (metal)
T2	Tank Cleaning Eqpmt
T3	Tank Monitoring Eqpmt
T4	Tank Venting Eqpmt
T5	Transportation, Bulk
T6	Trellising Supplies
T7	Turbidity Meters
U1	Used Equipment
V1	Valves
V2	Vineyard Equipment
V3	Vnyd Planning & Mgmt
W1	Warehousing
W2	Wine Analysis Eqpmt/Supplies
W3	Winery Eqpmt Dsgn/Mfr
W4	Winery Water Engineering
Y1	Yeast

Index of Advertisers

American Wine Society	42
Ahlstrom Machinery Inc.	18
Blake Printery	10
Boswell Company	12
Cellulo Company, Finer Filter Div.	13
The Compleat Winemaker	24
Cork & Seal of California, Inc.	16
Criveller Co.	50
Custom Cooperage	40
ENCORE!	17
Estate Bottling	44
Farm Bureau State Fund	25
Fischer & Schug Winery Equipment	41
fp Packaging	39
Genencor, Inc.	56
Hood Machinery, Inc.	15
Jasper Wood Treating, Inc.	8
KLR Machines, Inc.	31
KMG Main Hurdman	20
Mel Knox	22
Lafitte Cork & Capsule	14
Millipore Corporation	33
Orchard Rite/Tropic Breeze	49
Otto Sick Corporation	11
Pickering Winery Supply	32
Power Refrigeration Co.	52
Process Engineers, Inc.	43
Ramondin	45
Refrigeration Technology, Inc.	38
RLS Equipment Co., Inc.	17
George M. Schofield Co.	19
Scott Laboratories, Inc.	3
SEN Machines Inc.	23
Sonoma Grapevines	49
Storm Engineering	47
Tonnellerie Mercier	4
Tri-Transport, Inc.	9
James Vahl	12
Valley Foundry & Machine Works	2
V & E Consulting and Management	35
VINQUIRY	37
Water Dynamics, Inc.	27
Wine Appreciation Guild	4
Wine East	7
Wine Investor	50

Do remind our valued advertisers that you saw their ad in Practical Winery.

SUBSCRIPTION CARD

Annual subscription: $24.00/ year

Outside the United States, add $8.00/year postage, or $24.00/year air mail.

Mail to:
PRACTICAL WINERY
15 Grande Paseo
San Rafael, CA 94903
(415) 479-5819

85/11-12

NAME _____

ORGANIZATION _____

ADDRESS _____

CITY _____ STATE _____ ZIP _____

SIGNATURE _____

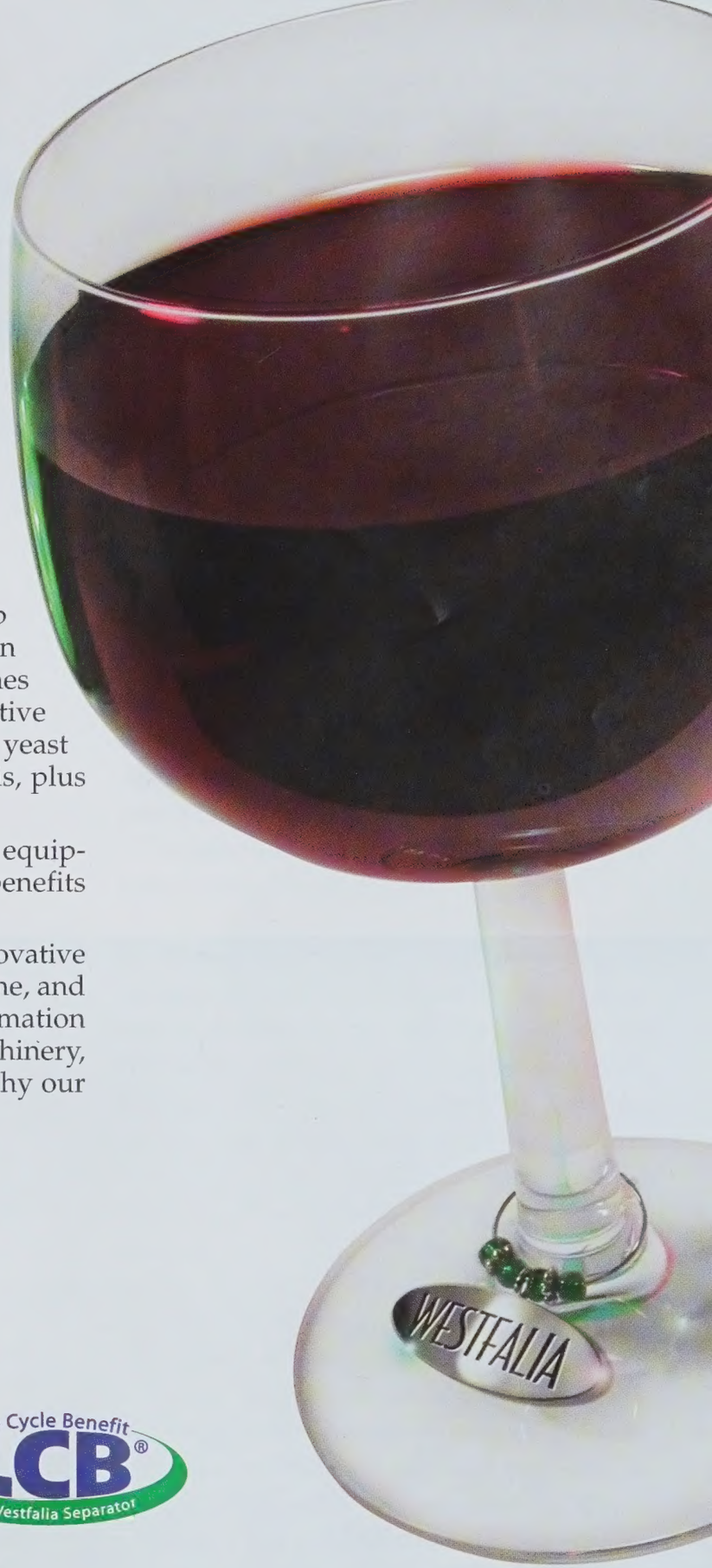
Check enclosed for $ _____ for _____ subscriptions.

Bill me for _____ subscriptions, for _____ years.

PRACTICAL WINERY BINDER

$5.00 ea. + $2.00 postage and handling.
Check enclosed for $_____ for _____ binders.
Please ship to:
Name _____
Address _____
City _____ State _____ Zip _____

The boldest innovations in wine processing stem from one name.



Westfalia clarifiers and decanters.

When you want to squeeze every drop of potential from your vineyards, count on Westfalia to help you do it right. Our machines provide exactly what your winery needs: effective clarification of juice and wine, highly efficient yeast removal and wine recovery from lees. All of this, plus unequalled product yields.

As a bonus, your investment in Westfalia equipment is protected by the exclusive life-cycle benefits built into each of our quality machines.

Westfalia's patented technologies and innovative approaches to wine processing are second to none, and there's much more on the horizon ... so for information on our complete range of wine processing machinery, call **(201) 767-3900** or **(510) 259-1100**. Learn why our name should be on everyone's lips.

Life Cycle Benefit LCB® by Westfalia Separator

GEA **Westfalia Separator, Inc.**

A company of mg technologies group

North American Headquarters
Northvale, New Jersey

Sales and Service Locations
California • Illinois • Florida • Texas • Ontario, Canada

www.wsus.com

"Rhoda Stewart has put to words a long-needed epic on Zinfandel. Her writing is as sensitive and descriptive as her photography. Rhoda has shown that the 'romance' of Zinfandel and of wine is not only a perceived notion. It is obvious that Zinfandel has touched her life—let it touch yours."

Leon Sobon, Shenandoah Vineyards/ Sobon Estate Vineyards, Amador

"Rhoda Stewart is clearly the mistress of the Zin image. Not only does she expose us to California Zinfandel in carefully crafted photographs, but she also creates beautifully detailed written images of the many regions and unique individuals involved in the production of California's heritage grape and wine. *A Zinfandel Odyssey* has all that a wine aficionado could request: romance, history, exciting characters, and California winemaking lore and myth combined to create a mix that is satisfying, moving, and informative."

Joel Peterson, Ravenswood, Sonoma

"*A Zinfandel Odyssey* is the culmination of several years of research and photography by Rhoda Stewart. It is magnificently done, and portrays the expansive California Zinfandel scene of the 1990s in wonderful detail and insight. Especially Zinformative, it's a must-have for every wine consumer."

Kent Rosenblum, Rosenblum Cellars, Alameda

"Bacchus, the wine god, would be proud of how this treatise has described his orphan son, Zinfandel. From its mysterious origins—showing an almost human characteristic of its own that has since touched the old-time family growers—to the winemakers, to the present day wine drinker, this is a jewel of a book on a grape variety unlike any other."

Dan Dooling, winegrower, Mariah Vineyards, Mendocino

A Zinfandel ODYSSEY

BY RHODA STEWART

Stories, perspectives, and techniques from more than 100 Zinfandel producers in:

Sierra Foothills-El Dorado County

Amador County

Lodi/Woodbridge

Contra Costa County

San Luis Obispo County

Southern California and South-of-the-Border

Lake County

Mendocino County

Sonoma County

Napa County

Within sight of San Francisco

Purchase two copies and enjoy FREE SHIPPING until June 15, 2003!
Use bookshelf order form on page 77, or call 415-479-5819.

Published in January 2002 by Practical Winery & Vineyard. 431 pages.

IN A FERMENT OVER CHRISTMAS SHOPPING???

Let PRACTICAL WINERY Help!

The last thing you need after a hectic crush is another crush—this time in department stores, elbowing your way through throngs of holiday shoppers.

This year, why not avoid the shopping crush? Send your favorite oenophile a one-year *PRACTICAL WINERY* gift subscription!

PW Makes It So Easy—It's Zinful

Our Christmas gift to you is 10% off all one-year gift subscription orders for new subscribers received by Christmas.

Mail us the special subscription form below, then sit back and watch your wine age.

Each lucky recipient will receive *PW* throughout 1986. In addition, we'll notify them by gift card, complete with your holiday greetings. (For pre-Christmas gift card delivery, please make sure your special subscription order is postmarked no later than December 5th to avoid the post office's annual stuck fermentation.)

So if Christmas shopping has you over a barrel, give your favorite winemaker or vineyardist the gift that will deliver practical solutions all year long.

Mail the special subscription form today.

HAPPY HOLIDAYS FROM ALL OF US AT PRACTICAL WINERY!

Your Name _____

Street _____

City _____

State _____ Zip _____

Recipient's Name _____

Street _____

City _____

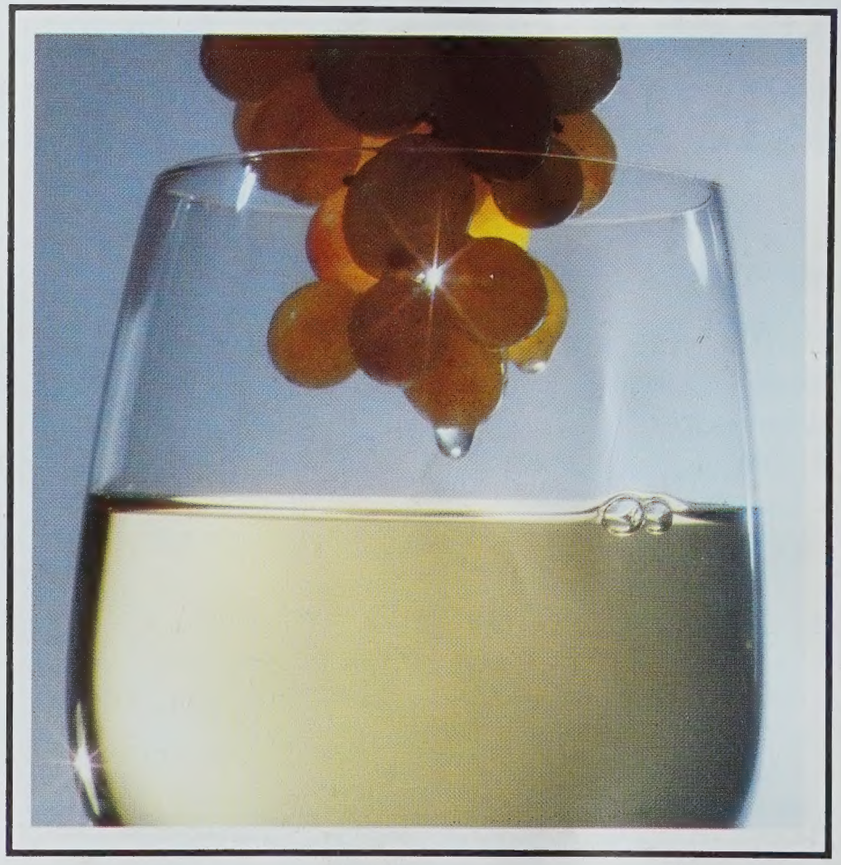
State _____ Zip _____

Please enclose payment of $21.60 (10% off the $24.00 annual subscription rate), made payable to *PRACTICAL WINERY*.

If you decide to do all your Christmas shopping this way, just enclose the names and addresses of additional recipients. Multiply $21.60 by number of recipients for total amount due.

Mail order and payment to: **PRACTICAL WINERY**
15 Grande Paseo
San Rafael, CA 94903

Genencor® enzymes



Clearly Better.

Call us. We'll tell you why.

GENENCOR

Genencor, Inc., 180 Kimball Way, South San Francisco, California 94080, (415) 588-3475